

SEQUENCE LISTING

<110> VLAAMS INTERUNIVERSITAIR INSTITUUT VOOR BIOTECHNOL

<120> Plant stress regulated genes

<130> FVB/Tab/V077

<140>

<141>

<150> 01200659.9

<151> 2001-02-23

<160> 173

<170> PatentIn Ver. 2.1

<210> 1

<211> 233

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a1-1-14

<220>

<221> misc_feature

<222> (68)..(68)

<223> n can be any nucleotide

<400> 1

```
gtaacgaggt acagaagcat tgtattacaa tgttattcat cacatgatat taaagaggta 60
gggtttantt tggttgacat tgaagctaaa atttctcttt aacacttaat gaaatattta 120
atttagattc aggtcacag acttgacgct gctatttttt tactcagtaa gatcatcttt 180
atctgtagtc tgtaccaata ataaaagccc aaacccttt aaccacattc atc 233
```

<210> 2

<211> 314

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a10-2-12

<220>

<221> misc_feature

<222> (141)..(188)

<223> n can be any nucleotide

<400> 2

```
aatggaagag gtcaagaaga atgtaaattg cttttcagag accattgagg ttttgagtca 60
gcacgccaa aaatgtaacc aggatattag gatggcacga gcagtgatct tgcggaagat 120
tgtcagtc aa cccagtagct ngaatcaggg cattggatg ttctttgatt gacagtagnt 180
gtcttgnnga ttttcttttt gtttatatac catgtatgtt tgtaaaaagt tgggtccaatt 240
atgttctgtt ggatctgttg atttgagatt tttgaccct gcagaaaatt aagttatagt 300
```

cctcattttg ttag

314

<210> 3
<211> 286
<212> DNA
<213> *Nicotiana tabacum*

<220>
<223> plasmid a10-4-1

<220>
<223> homology with metallothionein, homeobox gene
induced

<400> 3
ggcagcggct gcggaggatg tgggatctac ccagacttgg agaagtccat acctttacca 60
tcgttgatgg tgttgctccc atgaagagct ttgaggaatt tggagagaaa gcagcagaag 120
gaggaaatgg ctgcaaactg ggatcaaact gcacctgtga cccttgcaat tgttaagata 180
attctcttgt gattccacaa taatgtgtgt gttttctgta ataataagga taaaactaca 240
gctagccatg gaactgattg tcagttttta ggtttgtttg ttctga 286

<210> 4
<211> 286
<212> DNA
<213> *Nicotiana tabacum*

<220>
<223> plasmid a10-4-12

<220>
<221> misc_feature
<222> (58)..(195)
<223> n can be any nucleotide

<400> 4
gacatcagct gttggagctc aagactttcc tcttgtttca caatatgact ataaatantt 60
gcaacttcag ctgttgagagc tcaacatttg caagtgatta ttggctttga agagaactta 120
atttattggt tgtgacttgg tggcaaatta tgtgttttca agtagtaatt tgccttgtgc 180
ctctatgttt tcaantagta atttgccttc gcgagttgat tacatgagaa atcagattct 240
cagtctttgt gtagtaatta tttgggctgg tgccatcagc caagtg 286

<210> 5
<211> 278
<212> DNA
<213> *Nicotiana tabacum*

<220>
<223> plasmid a10-4-15

<220>
<221> misc_feature
<222> (64)..(186)
<223> n can be any nucleotide

<400> 5
ctacaaaaga aagggttattt atacaatatg cattgtaaaa aatcaaccgt taatacaatg 60
ggcngcataa catataatat aagattttga taacctaatg accaacaaca cttattttata 120
taatatgtgg aaaagatgca tccaactatc acagatatata catccaaagg ctatacttaa 180
tttctnctaa ataacaaaca cacacttaat ccgtcactcc tcgtgtgtac aagcaatagt 240
ccccaattta gttgtcatcc tctaacattc aatattcc 278

<210> 6
<211> 349
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a14-1-1 ; homology with a serine
carboxypeptidase

<220>
<221> misc_feature
<222> (19)..(19)
<223> n can be any nucleotide

<400> 6
gcagaaagat tttgggggng gcaccatctg gtttctttca cagtagatgg tgaggagaaa 60
ggaattcaaa agagctatgg acctctgact ttctctcaaag tcccatgatg caggtcatat 120
ggtgccaatg gaccaaccaa aggcagcact cgaaatgctc cagaggtgga ctgctcaagg 180
caaattgtcc taagaagatt atcttgctca catgtgaagc atcaatttaa gaaccacact 240
taactgaaac agatttaaca tttttccagc tttaaaaattc catcaaaaca tagaaaatca 300
tgtagataca tttcaccttt tcaggttacc ctgaaatctg tcaatgaaa 349

<210> 7
<211> 367
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a14-1-3

<400> 7
gtggaggaaa gggttcaggga aggttgtcgg agtcaatgcc gccgatgccg ggaaagttaa 60
cctgagaaat gaaactgccg gaattttgac gggttgccgac atgaggaacg ttaagtcacc 120
gttagagata acggagggtg acgacacgtg gtgggacgcg gacgccgtta caatcgagga 180
gcagtttgac gggtcaaata aaactagtca aattgaacga gtttactga ctcggtgaat 240
gaatgacta aaaagggtaa aatcgtaa atgacaaaggcg aaatgtgaag gaacgaacac 300
tcgtccgtgt ttgtctgtaa atataattat tttcaataat tattggaaat gataatttaa 360
tatttg 367

<210> 8
<211> 389
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a14-1-4

<400> 8
 ggaagaagaa agagaaaggg ctgagaaaga gaaagagaaa gagaaagaag cagctgctga 60
 agaagccaag attactgata aagtgaacga aaatgagaag tcggagagta atattgtcaa 120
 ggaaaatcca gagggtaatg gtgttaagga aaatggtaag tcggaaaata atgttgtcaa 180
 ggaaaatggg gatgttagta aaggttgac atgaaatgat tgattaatta ggagttccac 240
 ttaaaactag gatccaataa ttttgaatag ttttgctgtg ttcacattgt tgactttgtt 300
 attcaaacta ttcggatgga agtagtggat gtcgcaaatt acatttagta ttactacctt 360
 cttgtgaaag taacattttc ataatttag 389

<210> 9
 <211> 317
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid a18-1-5 ; homology with EREBP-1

<220>
 <221> misc_feature
 <222> (9)..(309)
 <223> n can be any nucleotide

<400> 9
 ggacatacna nacggcggag gatgcggcgt tggcgtatga caaggcggcg tatcgaattc 60
 ggggatcgcg tgcagtgttg aatttcccgt tgagggttaa ttcgggtgaa ccggaaccgg 120
 ttcgggttgg ttcgaanagg tcgtcaattt cgccggagag ttcttcctcg tcgtcgtcgg 180
 aaaatatttc gacaaagagg acgaagaagg ttgccnnct atacagctga gggttaattt 240
 gggaatttca aaattgttca attccatgaa cagggttgagt tcaatatttt atttcatttc 300
 ctctcctcnt agaaatt 317

<210> 10
 <211> 276
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid a18-1-8

<220>
 <221> misc_feature
 <222> (166)..(263)
 <223> n can be any nucleotide

<400> 10
 ctgagctagg agagcacaca gggccttagt tcaagtggaa aagggtggaag gacttgtgat 60
 taagtcaagg gtttgagcta cgtgccatgc gaattaagct tggtatTTaa gtggagtagg 120
 gtagaggggt ggaccatta tccgagtttc gaatgctgca gttgtnccta gacagatttc 180
 tcggtcctca aaataaaata aaataaatga gcttggagaa taaactccat ttttgtgaca 240
 gtacaatctt ctgcataaac atanctcaaa aagtgt 276

<210> 11
 <211> 293
 <212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a18-3-2

<220>

<221> misc_feature

<222> (27)..(277)

<223> n can be any nucleotide

<400> 11

```
gatgtacctg aagccactgc tatggantat gttggaggta ttttatcaac aattggcnaa 60
anatgtatgc tcgattttgt attttgattc ntaaaanttga taannnnngag ntgaantcga 120
ctgtattttg caagnntagt tatactctta atcttgtttc ataaaatgca tgtgtgattg 180
ttatttttagt cgatagaaaa aagaaagacc cngtatagtt tgttgatctg tgctgcagtt 240
tttgacagcc aatgctgttt tttaggttac aatatgnagt tgattttcta ttg 293
```

<210> 12

<211> 290

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a18-3-3 ; homology with EIF-5A (initiation factor 5A2)

<400> 12

```
ttaaagggtg atttgaggaa ggaaaggatc ttgtgttgtc tgtgatgtct gcaatgggtg 60
aagagcagat tgccgctgtt aaggacattg gtaccaagaa ctagtcgcgc attctgcagc 120
ataaataatt tgcttttagcc aagacatttt atactttaat cgtgggtactt tgatatccgt 180
tgattatgaa ctgcacttat atcctattgg catggccttg atagttgaac tttatgggtt 240
gtctggtaag acagaactgg atttgatagc agaagtgatt tatatgaatg 290
```

<210> 13

<211> 260

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a18-4-6

<220>

<221> misc_feature

<222> (36)..(172)

<223> n can be any nucleotide

<400> 13

```
tgatgatggc tgggttcact ccatccccaa ttagtngnaa cgtntatgan tngatccaga 60
attttatcaa gcnatatagt gnaaggnaca aagccaaggg gggggcaggt gcaatncatt 120
ttgggtgggg aganaagagn ntgattgttg ctttagcttg ggaatagtta cnaagtatgg 180
ttttctcata taaaccaca atgtgcatcg aatcaacttg tattgacatc tgactttgtg 240
ataatattca gtgttttatga 260
```

<210> 14

<211> 269
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a19-3-1

<220>
<221> misc_feature
<222> (222)..(267)
<223> n can be any nucleotide

<400> 14
cgtgatatgtt ttttcgcgac ttgattagaa gcaaattcagc aatagataag ggacttgtat 60
aaaagatagg tagcaaaata tactgtcctc ttctgtcctc gccttttttt tctttttaac 120
tttgatttta cagccatctc tggtaaaagt tctgatttct ctgggctcag ttttgtaaat 180
caatataaat caatataaaa acagcttgct tttctatgtt tnggttgatt tagatatgca 240
aatncttggt agagctggtt ctcttttnc 269

<210> 15
<211> 268
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a19-3-3

<400> 15
gagtaaaatt catatttgat aattatacaa ggaaattaca ttcttaaaga agtgattttg 60
atttgagttc caagatttgg tgaagttact aaacagattt tgagttccta acttgtgcgc 120
aatgctggat aactcagcca tttaatat ctagtactcc attaatat tgtttcttaa 180
cctatgtgta tgtttttctt gccgcagcaa ctttagttga tttcagagta ttcgttttga 240
tttgctcgaa aattgaaaag gacttgcc 268

<210> 16
<211> 269
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a19-3-4

<220>
<221> misc_feature
<222> (72)..(177)
<223> n can be any nucleotide

<400> 16
caaggcagag agacttgaat aaaggggagc atgaggattg aaccttacac ggtaagatgt 60
aaaataacag tncatcacg gaattactat tcaatcctca aaatgataag ttgtncaaat 120
aaatggggat tataagatnc cttttatctt tgcggaagg ggtgattttg tatnctnggg 180
atgtgtaact gttgaataaa attgtgtgaa atccattgtt cataatgtac gaaatttcaa 240
aactattata tatgcgggac tttaattta 269

<210> 17
<211> 265
<212> DNA
<213> *Nicotiana tabacum*

<220>
<223> plasmid a19-3-9

<220>
<221> misc_feature
<222> (91)..(22)
<223> n can be any nucleotide

<400> 17
aataaactat gaagtcgaga tatgaatcaa actgaaacct caagtaaaaa tggactcaaa 60
actcagacgc attactaaat ggcgaagtac ntngtgtgcg caaacaatac aaacaaaacc 120
tattgtttaca cccattcgac aaatatttca accaaaaaac agaacgtgac cttaaaagtg 180
agacaacttc tgtaaactgc cacacgcctc aatgatagan taataaagcc aaccaattcc 240
cagttcccat aacccaacc caacc 265

<210> 18
<211> 359
<212> DNA
<213> *Nicotiana tabacum*

<220>
<223> plasmid a20-1-3

<400> 18
ggaataaaga ttaacataaa tgtgatcccc gaaaggtaaa tacaaggatg ccaatctcta 60
ctaacatgaa atctctaatac tctatttctc atgtccaacc tcgtaaagca tgaagtccaa 120
ataaggcaag ggaaacattt cattcataga aacatgcaga aaagaattta tccagagtaa 180
taaaaactat taacctaaaa cgtcataaca aaatgagcct ggaataatac cctacagcag 240
taaaacttaa cgtccaaaaa cacaacacat aaaactcaac cacatcttgt tctgctgggtg 300
gagtaaagta aaaacaaaaa aactaaaagg gggggttgag ttaaggggct tcatcatta 359

<210> 19
<211> 399
<212> DNA
<213> *Nicotiana tabacum*

<220>
<223> plasmid a3-2-2 ; homology with L12 (60S) ribosomal protein

<220>
<221> misc_feature
<222> (242)..(242)
<223> n can be any nucleotide

<400> 19
aagaagacca aaaacattaa gcataacggt aacatctcgc tcgatgacgt catcgagatc 60
gctaaggtga tgaagccaag atcgatggcg aaggatttga gtggaacagt gaaggagatt 120
ttgggcacgt gtgtatcagt tggttgtacg gtagatggga aggatcctaa ggatttgcag 180
caagagattg atgatggtga tgtcgagatt cctctcgatt gaatgcgaat tatcaactga 240

tngtaatat attgtaattt tatgttattt tgttttgagg atgtcatctt gaggatcatt 300
 ttgatataac tatgacattc tggaaatttta tatttgga aa tgtagtttg atttgctttt 360
 tctcgatgaa gtgcttttagc attgctttat gcgttttgc 399

<210> 20
 <211> 287
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid a8-1-1

<400> 20
 gtgcaatttg cagtcactgg cgcagatcgc agagaacttg gctaaaagaa agagtaaatt 60
 aacaactact cgtgactaat tctgtgtttt ttttaatttt gtacattttc tctcttttaa 120
 tttaggttgt ttgttggttt gagctgttag ttttgaatga tggatagagt atttggtatt 180
 attgtagatt atgaagaccc agaactgaaa cttcatagat tggtagattt cgatgactgt 240
 aaggttgggt cttggaattg ttacaacgtg actgtttgat aattctg 287

<210> 21
 <211> 284
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid a8-1-2 ; homology with
 (chlorophyl)-geranyl-geranyl reductase

<400> 21
 cagatgagta tgtgcagaag atgacatttg acagctattt gtacaagaaa gtggcaccag 60
 gaaaccccat tgaagacttg aagcttgctg tgaataccat tggagtttg gtgagagcta 120
 atgcactaag aagggaaatg gacaaactca gagtataaga ggattaatag cattaatatt 180
 tttcttgtaa ctgaagagtt tatttctcaa attactctgt aaacaccttt catccttcct 240
 tcaataggat ttatgtaact tcatgatttg agttacattt cttc 284

<210> 22
 <211> 287
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid a8-1-4 ; homology with an early wound
 inducive gene

<400> 22
 gaacatgctg attgcagcag ttgaagaacg atatagagat gcagctctgt ggagggacaa 60
 gcttactcaa ctgcggtcca aacgaaactg gatataacag gtgtgcttta gagttgtctg 120
 agcaaaggac tactgtgtat atagggagtt attcatcgga gccaatgtgg tcagcatcgt 180
 caaagatcaa ttgtagctct ccgttaatat gtaaaataac ttgtgaatat ctgtatagat 240
 tgtaatgcta atgtaaaaca aacaggtaaa cttatggttc ttggaca 287

<210> 23
 <211> 344

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a9-1-2 ; homology with epoxide hydrolase
[I]

<400> 23

```
cgttaaaagt ggaatggtga aagaatatgt gcctaattctg gaaaccatat tcttaccaga 60
aggcagtcac tttgtacaag agcagtttcc tgaacaggtc aatcagttga ttatcacctt 120
cctcaaaaag ctcatataat aaactgcttg ccagcgacgt tgaataaagg gcaaccacgt 180
gcacgaaact cccgttatgc acaagggttg ggaggagccg gcatttgggt cttatttttc 240
agagttgaat gttgatctca gttttatcaa acaataccat atcacatttt cggcataattt 300
ctacttgat gttgatcaat aaaagggacg atgggtttacg cgcc 344
```

<210> 24

<211> 255

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a9-3-4 ; homology with ISI10a glucosyl
transferase [I]

<400> 24

```
aagagagtaa tggtagtgga agaagcagag ggattcagaa acagagctaa agcgtataag 60
gagatggcaa gaaaagctat tgaaggagga ggatcatctt aactggatt gactactttg 120
ttggaagata ttagtacata tagttttact ggtcattaag ttatgattaa aaaaaaagta 180
gttcttagta tgatttctat actgtttttg tgctttttct gtatgtgact gtgctaattt 240
aaacatttcc ttttg 255
```

<210> 25

<211> 216

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a9-4-1

<220>

<221> misc_feature

<222> (26)..(171)

<223> n can be any nucleotide

<400> 25

```
cattaaacaa gaattagcgg tggganttgg gcaagaaaat tagaattgga tctaccgtgt 60
gtgcttttta gcctattgaa aatcggtatt cattttgctc taggcttatg atcttgtttt 120
agcttgctcc tattggtggt tattttttan tatgttttat gtattaaagg naggattcag 180
agaataaata catattgttt atttctagtt ttgtca 216
```

<210> 26

<211> 212

<212> DNA

<213> Nicotiana tabacum

<220>
<223> plasmid a9-5-9

<220>
<221> misc_feature
<222> (62)..(62)
<223> n can be any nucleotide

<400> 26
ataagaagaa aattacctct acaatcttta cttagaattg tggatgtaga gcaaggatgc 60
anagaccgga gctaatatga atttataaat atggattggt gatctataat aagatataag 120
tttcgatact ttctgatatt ttgctataga atttggagat gaatggatc tccagaactc 180
tcattcattt gtaaaaagtt tttgattctt gg 212

<210> 27
<211> 199
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-6-11

<220>
<221> misc_feature
<222> (73)..(73)
<223> n can be any nucleotide

<220>
<221> misc_feature
<222> (144)..(144)
<223> n can be any nucleotide

<400> 27
taagcagtga cggagatacc ctttacagag agtgtgtggg tgtcatctaa ctagctgctt 60
cataaaacat ctnccttgtg tatatatcta tatttaaatt attttatatg tatatataga 120
taatagctag ttatcataat atantttaaa tattgatttg agacaagaaa taaaatctca 180
aaaccaacat attctttcc 199

<210> 28
<211> 178
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-7-1

<220>
<221> misc_feature
<222> (26)..(152)
<223> n can be any nucleotide

<400> 28
gaaatgagag attgaatttc aatgantgca tttcaggaag agtactctgt gatgttcaaa 60
gtttgcagtg aattatcgta gtgtattnct agtggtggtt ggtncattac ctttcccaa 120

taagacattt attgtttgac atnccaattg anaaatgtca ttttgtatcg ttctcttg 178

<210> 29
<211> 196
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-7-10 ; homology with LOX1
(lipoxygenase) [I]

<220>
<221> misc_feature
<222> (36)..(36)
<223> n can be any nucleotide

<220>
<221> misc_feature
<222> (188)..(188)
<223> n can be any nucleotide

<400> 29
tagaacttta attcaatata aaagtattaa atccangtgt tgttattggt tctttatatt 60
cctaataata atagaaaata aaatttttta tttttatttc aaggaggttc cagctacagc 120
taaaggangt aatgctgtag gctcttctgt tctgtaagta attcatttgt atcaacaagt 180
gcccgatttt aaattg 196

<210> 30
<211> 197
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-7-11

<400> 30
gaagacaaga aaaactatag gacattacgt aaatattgaa tatagataga cttatgcat 60
tgtgatgtaa gaaaccttta gaagacattg tcaaaactcca gcttctctaa cttgtaagaa 120
atgatcaaga gtgaacctgg cacagtcgat ccgcaatttg ttgctgtttt gtcttcaatt 180
taacactacg ctccac 197

<210> 31
<211> 340
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid cl-1-3

<400> 31
aatcattaag gtttaaaaga aaagataaca cgtaaaaacg catccttttt acctttatcg 60
tcaaatttca aatgatgaat tacggagaaa ccgaatttgc aaactccata actctgctgc 120
tgttattctc gtctcagaga gggagagacg cacaacgaac atcaaaatag cgggagaagc 180
tcggaaaaat atgttttcat atatttatat aatttgaagt gaatttggtg tgttgaaaat 240

ttaactccct ctgtggattg ttattgaaga tataatTTTT tttcaatgtt cgTTTTctgt 300
 ttcgattatt gaaagatagc aacagaaaga ttgtggctta 340

<210> 32
 <211> 336
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c1-1-5

<400> 32
 tgtatgatcg aggtgtaagc cctcttcctg ctgccaatgc agtagttggt ctgaggagtt 60
 gacaattgat gacaggtgtt gacagttgat gatTTTcttt cctactagat taaagtctac 120
 cttcactcat gtacatgata agcatttgta cagaacagtt atggttctgt ttataaaaaa 180
 agattaggta gtcttgactt gcatttctgt gtattttgaa agtgcagact cgctctttaa 240
 cttctatgcg tgttggcttc ttgggccttc tccttcttgc tcgtgattgc ttcttataaa 300
 atttaagtaa aaatacatag cctggcattg ttcttg 336

<210> 33
 <211> 400
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c1-2-2

<220>
 <221> misc_feature
 <222> (9)..(86)
 <223> n can be any nucleotide

<400> 33
 agctacgann tgnctcnagg gcnnngcaant gcgncgngng antnatngca ncnngannt 60
 antgttnnan ctggaacnga ntccangcaa cctgtttctg tggattcttc cacgtacctt 120
 tggcttggtg atacatgtag atcgtattgc cgtcaacact taataacttg tacacgaaac 180
 agcttctgtt ttgaagtctt tcccagtcaa tggtcgatag cattaatcgg ctgagatgga 240
 gcttagatcc caagagtagc tgccttttag acggtttgac ctaatcgtgt gttttgactc 300
 tattatgata ccttcactcg ctgcactaag aaattgacaa gtgcggtgaa tttcttacat 360
 gaggaaattt caactggaat gccttagtat tattgtgttt 400

<210> 34
 <211> 330
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c1-3-12

<400> 34
 ggaatggatg atctgaaagc atcttaagtc taaaggaagt ttgcaactca gttgagattc 60
 atccacactg agagaaactt ctgaaacaac catacttctg ctttatcctg ttgtaccatg 120
 aatagctgta gcagcagaca atgagctttt tttaaagaca tttggtttgt aacttaaaac 180
 ggaaggaact ggattgaggc aataagtgat tctggagaat agtgttttga ctcaaatatt 240

```

taatttcatt ttccagatca tgatcacctc ttgtgatttt acatgtttta ggacttcaag 300
tgaatgtatt gtccagtaag tgttattacc                                     330

```

```

<210> 35
<211> 334
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c10-3-1

```

```

<400> 35
gagtaggatg ctggtgggat ggtcttctgt ttacagaat cctttacaga tctggtattc 60
aagaagacca ttaggatgg taggatgtct tgagatgaag catgaattat cttacgccgg 120
aaattttaag aactttttgc ctttttcat ttacagctca acagtttata tcgattagta 180
gatttagagc ttcctcattc catattctaa tccttccaac acattatcct agtctgtcta 240
gtattccttt tactgcattg ggcaaacttt gagctataat tgtactgggc ccaagcttca 300
aaagaatgta tgaaatgagc cattcactcg ttga                                     334

```

```

<210> 36
<211> 334
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c10-3-5

```

```

<220>
<221> misc_feature
<222> (2)..(111)
<223> n can be any nucleotide

```

```

<400> 36
gnanagagng naantttggg ngganagntg ctgttgchna nccctanttt cccccngcca 60
antgnngaaa ggaattaata aaanaagttt ggattatnga acgtnggaag naacaaaatt 120
agtaattctt attactagtt attttcattt gttaacacca ataataacta atttgcttgt 180
ttggcttcat atctggatgc tcgcttgtgt agcttattat tgtcattggt tgtatgaata 240
aaccaaggcg acgggcaact cttgactctt gtaaaaagta gacggtttct cagtgtagaa 300
gtcggagtag taccattcct gaaatcttgt cttt                                     334

```

```

<210> 37
<211> 216
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c11-2-1

```

```

<400> 37
aatatgaagg ggggtaaatc cgtaaataata attaactaat caaatatcga ttacaaaatt 60
gtaagataat tgattgaaga atatccttct ttgtacata attattttca agattatata 120
aatgaaaaat tgatgtttga tcgagatgac ttccattat ttaagttgaa aatggagagt 180
ggttgtttca atataagtat tttaatctga ttttct                                     216

```

<210> 38
<211> 179
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c11-3-1

<400> 38
aagtgttaag taaagggttc cattgcttat ccccggtata tttaccttat cattttcttg 60
ttggacatta ccgtgatagc tagaagataa tcatgttgac tgagaaatct tatttctatg 120
actgtaaaat ttgttaaaaa tgagaacgag ataagatttc ctattccgaa gcacatact 179

<210> 39
<211> 182
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c11-3-3 ; homology with caffeoyl-CoA
O-methyltransferase 3' [I]

<400> 39
ggaggataaa atatcatctt gtaaataaac tttactcaag ccgaatgaga caaattttta 60
gtatttggtta caatttcaga agtacaatat ttgaaatata aatatataga aatattaata 120
gcgataatag tcatgagata caaaatattt attcaciaat caaaagaaaa acaaaggtag 180
tt 182

<210> 40
<211> 441
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c13-1-6

<220>
<221> misc_feature
<222> (242)..(242)
<223> n can be any nucleotide

<400> 40
catcggatgg aggacaaggc aagtgaaggg gacagcaaga aacctcagag cagctcgaat 60
agacagactc ccacttcaaa tccatttcca gcttcttcgc aatctcctcc aattgccaaa 120
tccacaagta ataaaagcaa aagcccgctg cctccatctt tgccattgat atcagattca 180
acgtcgtcat cgtcgcaatc tcttcctata gttgccaaat ccacaagtaa taaagttaca 240
anaccgcaac ctccatcttc gttgatata gaatcaaatt catcttagaa ttcttgatgc 300
agaatggccg tgctttatct gattcaccag tgattctttt gctcgatgct acaaaatact 360
agtaattaac taccactcga gaagccttgc aaattttgta tacacgaatg cattcaatga 420
actgggatcg accttctttg t 441

<210> 41
<211> 340

<212> DNA
<213> *Nicotiana tabacum*

<220>
<223> plasmid c13-2-1 ; homology with L19 ribosomal
protein

<400> 41
agggaccagg agagaggcca gttcaacctg cagctccggc tgttgccgca ccagcccaac 60
cagctcaggg atctaagaag tcaaagaagt gagcatgatg aattgtaagg agggtgccaa 120
gcctgctttt tgttcttgct agtataacag tttagcatgt ttgatctgtt cccttattgg 180
tcttttaact ttggaagaca acgttacctg tacgaatttg gaagctgggtt taaagttttg 240
ataccttggt tctcagtgat accttttact catgttttga ttatatattc aacttagttg 300
ttttgcgtcg catggaatgt agtgagtgag cagctatttg 340

<210> 42
<211> 184
<212> DNA
<213> *Nicotiana tabacum*

<220>
<223> plasmid c13-3-13 ; homology with 23S 4.5S rRNA
genes (chl)

<400> 42
ccagagacga ggaagggcgt agtaatcgac gaaatgcttc ggggagttga aaataagcat 60
agatccggag attcccgaat agggcaacct ttcgaactgc tgctgaatcc atggacaagt 120
aatgagacaa ccatcttgct gtatattata aagcataagt aataatccat tcttatagt 180
agtt 184

<210> 43
<211> 186
<212> DNA
<213> *Nicotiana tabacum*

<220>
<223> plasmid c13-3-6

<400> 43
gaagacaata caacattaat cacctttgcc tctgcgactt agagacaatt gaactactgc 60
attttgcttg attttctatg ttgtatcttg agtataataa cgtcgtgagt gagtttatat 120
ttgcaaagga tatccagtc aatccatgct tgggttaaat gtatatattgc caaaaacttt 180
ctattc 186

<210> 44
<211> 549
<212> DNA
<213> *Nicotiana tabacum*

<220>
<223> plasmid c14-1-60 ; homology with a glycolate
oxidase

<400> 44

```

ccttcaacaa ttcattggctc ttgaagaggt tgtgaaagct gcacaaggcc ggatccctgt 60
attcttggat ggaggtgtcc gccgtggaac tgatgtcttc aaagcttttg cacttggagc 120
ttcaggcatt tttattggaa ggccagtagt tttctcattg gctgctgaag gagaagctgg 180
aatcaaaaaa gtgttgcaaa tgttgcgcgga tgagtttgag ctaactatgg cattgagcgg 240
ttgccgctca ctgaacgaga taaccgcaaa ccatattgtc actgaatggg atgctccacg 300
tgctgctctt ccagcccca ggttggtgaaa atgtacctca agtgtcaa atgtgtgatca 360
aagcaaagta ttgcttcact gtttcagaag cttatatattt gggtttgaat acttgtttct 420
gtttaatgag tttacgaata tgtaagctt ttctcagtaa tggaaaactg ataaattctg 480
ataaatggcc agatatgcct ccatttgtac atcctctatt tctatatatc atcatattgt 540
gaacttttc                                     549

```

```

<210> 45
<211> 49
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c14-2-10

```

```

<400> 45
attgctatac ttttccaagt ttgataatat gaaaagacat ttctgtttg 49

```

```

<210> 46
<211> 553
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c14-2-15 ; homology with L35 (60S)
      ribosomal protein

```

```

<400> 46
ggggaaaaatc aaagactgag cttttggctc agttaaaagga tctgaaagca caacttgctc 60
tcctccgtgt tgctaaggct actggcggtg ccctaacaaa ctctccaaaa ttaaggtggt 120
gaggttgctca atagcacaag tattgacagt gatatcacag aagcagaaga cagcattgag 180
aaaagcttat aagaacaaga agtacttgcc tcttgacctc cgtccaaga agactagggc 240
cattcgtaaaa cgtcttacca aacatcaggc atctttgaag actgaaaggg agaagaagaa 300
agagatgtac tttccaatta gaaagtatgc cattaagggt tgaattgatc caacttagat 360
agtttgatgat gtttagagcaa agctgaggat cattatattt gccattttgc aatgttatat 420
tttgatttac tactattatt gcattatgaa gttggagttt tggtattttg tttgccttat 480
gcgtgcaact tttatgcatg atcctgtcta cacttctttt tctacacttt tgatcgagtg 540
tcgtgattat tgt                                     553

```

```

<210> 47
<211> 311
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c14-3-4 ; homology with L25 (60S)
      ribosomal protein

```

```

<220>
<221> misc_feature

```


<222> (49)..(49)
<223> n can be any nucleotide

<220>
<221> misc_feature
<222> (159)..(159)
<223> n can be any nucleotide

<400> 47
taaaaggaag attaaggatg ccgtgaagaa gatgtatgac atccagacna agaaagtcaa 60
taccttgatt aggcctgatg ggactaagaa agcatatgtg aggttgactc ctgactacga 120
tgcattggac gttgccaaca aaattggaat catctaaant agtagttacc tgtttagaat 180
tttacgagaa tttaaaatct tggattgagt ttttagatac acttgaatgg aagtgccttc 240
tatttttcat tttgaatttt gtgttttgga gacatgtttt gttccgtata agagaaatca 300
acttttatgc t 311

<210> 48
<211> 272
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-5-1 ; rice genomic homology

<400> 48
actgggatag tcaaattatt gatcatgaag atggggccact cgaaagggag aagcttctgt 60
ttgcagtga atcatatttg acagcgccag ctgctcaagg atcttaaact acttaatccc 120
actgttttta atctttctta cttcaaagtc taatcatatt gctaatcctc tcttttattc 180
tttcacatgt taagtcttag tattacttgc aaattgtaaa ctctaggatt ttaatgattc 240
ttcagcaact aactgaagt aatgagttct gt 272

<210> 49
<211> 270
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-6-11 ; Arabidopsis genomic homology

<400> 49
ggaagattat gctggcgatc gccgatggac ttggatcatc gccgattcaa atggttcttg 60
atgatagtga ccagaatatg atcaaacaag ctgccgatct cgaagcttct aagcgtcctg 120
cctaattaat tataactggg ttccagttct ctagcaaaat aagtcctttt tttattgttt 180
caattttcag tcatgtcttg tttccatgct gtgttctcaa ttctgtaatt ttacatactt 240
atatacaaat gaaatgtagg acaactttat 270

<210> 50
<211> 193
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-7-4

<220>
 <221> misc_feature
 <222> (18)..(19)
 <223> n can be any nucleotide

<400> 50
 tcaccaaatt ggcttgtnna cttataatta ttgtagcat ataaaagaat aactattgtc 60
 atattacatt tttccctaatt gttcaatgcc ttttagttt tcaacaaatt caatgttttt 120
 tggttcactt gtttgtgaga tgattgcaaa atcatcaatg taatgcagtc tatatttgaa 180
 cgaaattcat tga 193

<210> 51
 <211> 203
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c15-1-2

<400> 51
 aagaaatcct gaataacatt tcatttgga ggaggtatta tatagttaat ggatttgggg 60
 tttttttgcc agtaaaattg tggtcaacat ttaatagaac tctgctgttg aaggggtttg 120
 tttttatatg attagttact gtatttgtat tcaacagaca atattaattg aaatcaaatt 180
 tctgcgtaga ccaacttctc ttt 203

<210> 52
 <211> 492
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c15-1-4 ; homology with CBP20 (pathogen
 and wound-inducible antifungal protein) [I]

<220>
 <221> misc_feature
 <222> (402)..(461)
 <223> n can be any nucleotide

<400> 52
 ggacctcgtg gccgaaactc ttgtggcaaa tgcttaaggg tgacaaatac aggcacagga 60
 gctcagacca cagtgagaat cgtggatcaa tgcagcaatg gcggactaga cttggacgtt 120
 aacgtttttcc ggcagctcga cacagacgga agaggggaatc aacgtggcca ccttattgtg 180
 aactacgagt ttgttaattg tggtgacaat atgaatgttc tggatcccc agttgacaag 240
 gaataagaag ctatatatgg ccatgttttag tctttgacgg cccaaataaa agtaaaaaga 300
 acgatatgta aaaggaaaaa gaaaataaaag ttgctttgat ggggttaggc aattccaata 360
 tctattcaag aatgtctttc gttttgggaa gaaagagtga antgtgtatt atctttgtga 420
 ttttgtagtc naatattgtg atttttaaac aaanaatcnc ntgggacagt atttgttggg 480
 ctccctttga ac 492

<210> 53
 <211> 201
 <212> DNA
 <213> Nicotiana tabacum

<220>

<223> plasmid c15-11-2

<400> 53

```
ggatcatgag gtctatcgag tgaaggcaca tgcgatggcg agcaaaaaaa agcttttgcc 60
catgtctaga acacaatgcg gatacatttg atggcccatc tgaaaggaac tatactgcat 120
ccaagctgtt aatggccata atattttcca atatcatgac atttcttcac tgttattgga 180
taaacaagct tgagatctac t                                     201
```

<210> 54

<211> 199

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c15-11-4 ; Arabidopsis genomic homology

<400> 54

```
agttgtacac caaacttata cataagtttg aaaccatttt atttccagtt tacatgtact 60
aaattatcgg tagatttgct tatatgtatt gtacagtagt tctaattgaa aggttgatgt 120
caatatctcc agagaggaca gaatgacgaa caaactgtag gtgcgagaat attgcttcta 180
aacataaag tttcccggt                                     199
```

<210> 55

<211> 431

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c15-2-8 ; Arabidopsis genomic homology

<400> 55

```
gtcgcacaaa ggcttccgtg gatacaatac catgaagtac ccaatgttgg acatttgctt 60
attcatgatc gagccgtgaa ggaggttatc tggaagacat tcttggccgg agagaaagag 120
cagatagtgt attcttaaac gggaagaagg agatttagag gttcctttgt aagaagacac 180
attctgtgtc ttttactggt atatcctatt gcatacatat taatcatata taaagttcgt 240
gagctagtag ctcaagtttt ggaacttcgg tggataatgg tttgcccctc taccctaact 300
gagaaatcct ggggagacgc aagtttcgaa actcgatgga taatggattt gaccttctac 360
ccttctttaa gacggttttg tgggtactga atgtgcattt cggtttaaaa cgtttttaggt 420
gtggccttgt g                                     431
```

<210> 56

<211> 446

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c15-3-4 ; Arabidopsis genomic homology

<220>

<221> misc_feature

<222> (33)..(33)

<223> n can be any nucleotide

<220>
 <221> misc_feature
 <222> (61)..(61)
 <223> n can be any nucleotide

<400> 56
 aagaggaaca agtcatattg atcgctagat ttngcattta ccgtgtggat aaaatcctgt 60
 nggagtataa ttctacttgg gacgatgtac tgaatttcag gctctacttt gcaagtagtc 120
 ttaatatccc tcatagaaca ttgcctcgaa tcttcactga tgtgtttaat gaatttgctc 180
 agatgagtca gagagtttagc gtaaatgccg agcctatctt aaatatcggt ccagtcttgg 240
 gtgctgggag gtctttatcg accttggatg atatattcac gtgtgaattc atcgctagga 300
 aatgttagat ctcatthaaa ttagggaatt atatattaaa tgttgagaaa aagagagttt 360
 tgaacttgaa caaattctta taatgttatt gccaacccaa ttgttgcaaa ttacacttag 420
 ctttacagga aatgaatata tgaagt 446

<210> 57
 <211> 247
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c15-6-2

<400> 57
 gaaccaagta aaaggcctga aatggaaagg aaaacaagca atcacaacta gacaacttca 60
 acatagaagt gctttactac agtattttaag gacaaaatca ccaaaagcta atgaaaaaac 120
 tggagggtgt tgagcttcaa cactactcta ttggaaactg ttgtatgccg atactatgat 180
 tgtgttttgg ataatatattt tgtggtgcaa gttatgatgt aatatgatgt aaactattaa 240
 agcgtgt 247

<210> 58
 <211> 325
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c15-6-3

<400> 58
 accgatcaag tacctaatta gagttccaaa tgctgcttag gcttttgtcc aacaagggtct 60
 tgttgttcca ggcatttaac tcctttttgt ggatatcgat tctttatccg cctgtgagtg 120
 gatgcttctg tttttgccat ctcttggaat gtttagttga ctgtaaaaac agctaaaactg 180
 taaactaaat tagcagagga aatctgccgc cagatatttc aacatgcaag gatataatac 240
 ttgtcgagaa taaaattttc agcttctatg gccttttctg tgatactttc aggaaaacat 300
 tctatcagaa aatacatatg ttctg 325

<210> 59
 <211> 235
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c15-7-1

```

<400> 59
gttgatgatg tgaagctctt gagtgtcagg aaccctcgtc gattcctctg agtcatgtat 60
ttttatgtaa aacgatgaat tttcgagtta tagtatgagt aaatttgggt gtaatgaagc 120
aaaaagaatg tggggagttc tgtttctctt agcttggtta ctagtagtgt ttccatatga 180
gtatgtatta tactaatgtc taatgaaagg caaagaagta tatatatatt gattg      235

```

```

<210> 60
<211> 307
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c15-8-5

```

```

<220>
<221> misc_feature
<222> (217)..(306)
<223> n can be any nucleotide

```

```

<400> 60
taatgagcgt gacggaccaa atttagtata tagatagtag atattcttctg cattctagta 60
caattttatac ccatacaaga gtatacattt atgttactcc atacaaatga aagttaaaaa 120
agttattgaa tgtggaattc ataatcatag ggacaagcga tgtgaattct ctatgttttg 180
atgaacgact tgtatgatat gcttccttag aatacanaaa ttaaataatat ttattgcnaa 240
aaaaaaaaata cntgactcan aggaatcnac gaggggttct gacnctcaag agcttcacnt 300
cntcanc                                          307

```

```

<210> 61
<211> 342
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c17-3-1

```

```

<220>
<221> misc_feature
<222> (35)..(243)
<223> n can be any nucleotide

```

```

<400> 61
aagaatacaa gtactgcatg cacaagcatt ccctngggca gagcttggat gatattaaag 60
gttccttcga gtggtaaatt ggcaaaatct gctagcgtgg cctgtgtacn cctgcatctt 120
ttcccattaa caacttcctg ttgtatgtat tgtgtcnatc gtgtggatgc tcattgattt 180
gtactaatct gtaacgaagt gcaactttca gagattaagg ttttgtttcc catttcngtc 240
ccntggggtg ttccggaaca actatgggtg cttgtaaatt cctctgatct tgacagtggg 300
ggcaatattc ttacaaattt atttcaattt caaccgggta ta                      342

```

```

<210> 62
<211> 287
<212> DNA
<213> Nicotiana tabacum

```

<220>
<223> plasmid c17-3-5

<220>
<221> misc_feature
<222> (52)..(244)
<223> n can be any nucleotide

<400> 62
ataatgacgt gtcataaaaa atgtgatgtg gatgacgacg tgtcatccac antgtgcatt 60
tgaagaacac agaggggttt aaagtagtgt gtttttaaca actacgagtg ncttgataaa 120
agcttgtgga gtataggggc cgagatgaca aatcaggaca agtaaaggta tttattaggc 180
tattatgcct taattattta taatttgctt aaacaatgtt tttaaaaaat atttacagct 240
attnacttgt atatcagacc tttacatgaa tttagcttat tgttttt 287

<210> 63
<211> 211
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c17-5-5

<400> 63
attactattg agccttagac tatgatggat atctataaga agaacaagca aagcttgggt 60
cgcttatggg ggcctttgtg atttacattt tactctactt cgaattttca attaatttga 120
ttatattcct ttgattagtt tagttctata cttaacttgg gattgttgat ttactttgac 180
ctcttcactt agtattctca cttagttatt g 211

<210> 64
<211> 211
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c17-5-8 ; Arabidopsis genomic homology

<400> 64
attgaagagg attggggaaa ttcctgctgt tgaggagttt gtttacctta aattataaga 60
actgtttgat ttctgtctga attcgctaca aagcaaaatt ttgatgatgt tatttgttta 120
ccagtagtag tctagtgcag gatacaaaaa taatttggat gtgaaattag aagtgtagta 180
catttggttg tcaatttgac aatctttttg g 211

<210> 65
<211> 187
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c17-6-2

<220>
<221> misc_feature
<222> (134)..(173)

<223> n can be any nucleotide

<400> 65

```
gatagtctat tagttaccca aacctgctcc gtatatatttg catattgtca aagtgatctt 60
tcagggtactt cgtgattggt gtattcattc taaattttgc gatcaaaaata gttcatcctt 120
agtgattgta caantaatac taaaactggc actatttngg tttgaattca canttttctca 180
cataatt                                           187
```

<210> 66

<211> 382

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c18-1-2 ; homology with DNA-J domain
containing protein

<220>

<221> misc_feature

<222> (53)..(53)

<223> n can be any nucleotide

<220>

<221> misc_feature

<222> (72)..(72)

<223> n can be any nucleotide

<400> 66

```
cttgataaga ggatggcaaa cattcaaagc cgcacctcga gttcggaggt ttnatcccgg 60
tggtttgaac angttatgac aagaagggaa gcagcattaa ttcttggagt cagagaaaagt 120
gctgtcctgg agaagataaa ggaggctcac aggagagtaa tggttgcaaa tcatccagac 180
gccggtggta gccattatat tgcttccaaa atcaatgaag ctaaggaagt cttgttaggg 240
aaaaccaaga cagctaattc cgctttctaa ttcaccattt tgtttgcacc ttccttctta 300
acagcttaat tgtccgtata cgtgtaacaa agtgaatttg tatccgtaga catgttacta 360
tcataattta ggagacttct tt                                           382
```

<210> 67

<211> 340

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c18-2-1 ; homology with CCT (chaperonin
containing TCP-1) beta subunit

<400> 67

```
aatatctgag tcgttcaaag tcaaacaggc agtgttgctc tctgccactg aggctgctga 60
aatgatccta agggttgacg aaatcatcac ttgtgccccca aggaggagag agggaaatgta 120
aaaacaatat tggcatggtt taagctgttg agatgactcg tattttatta tggtttgaga 180
atltgagatg gtaggtgttg gctgtaaacg agtcaaata tagattgcta ttggaaccat 240
gctaaagtgc actgcgctga gtagtttctt ttgaggagca aatgttttgg tttgttttca 300
taatgtatgc atgcttctat agaaaacatt tgttcgatac                                           340
```

<210> 68

<211> 336
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-2-11

<220>
<221> misc_feature
<222> (70)..(294)
<223> n can be any nucleotide

<400> 68
aaataaggtt gcggaagcaa acaatccagg acattctgct ggatcattgg tataccgtaa 60
tgaaggtttn gttantttgt ttctgtggca ttgttcaaat cttttatcag tntccgctt 120
ctatagaggc aaaagggaaat cttttctttc agcatgtacc tgtaataatt tgtaaaaata 180
aaagttgata agtcatgtag ctagctgtgt taatagaaga aagagatgag agtgagattt 240
agtatagatg ttttatctat accttntctgt ggtatgtagg cttttactgc tcanctcata 300
cctcattgac acatctaate aaattattcc atttct 336

<210> 69
<211> 338
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-3-10

<220>
<221> misc_feature
<222> (63)..(324)
<223> n can be any nucleotide

<400> 69
caggcaacta ataccaagcc attagtttct cattatgaaa aactttacaa agacaaaatt 60
acncanaact acaagccaaa aaagctcaac atagtaactn tgatcaaatg atcatataat 120
atttgagcc ttggacacac ctcagcaaca gaatggaach tcaacaacac taanaantt 180
cacacctaaa tccaaaacaa aaagactcga ctccgtatca naaantangg tttacntgaa 240
aatgtatgat ggtnancaac actgaaactg tctaacnant ataanttcnc nctctcaana 300
caancnttat ctctgttcgt tnanccgttt ggttttat 338

<210> 70
<211> 323
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-4-19 ; Arabidopsis genomic homology

<220>
<221> misc_feature
<222> (102)..(154)
<223> n can be any nucleotide

<400> 70


```

actaagtttc tgcatttggc ttgatttctt atcaagttga gacaatattt gtcattacaa 60
ggcattttta gtacaaaaaa aacattagca gtaactaaaa antatanctt ctgggttggg 120
gggattcanc aatttgaaga ntctgttoga tgantttaca agctttcttg ctccaatct 180
ccactctcat gctttcactc ttctcaatct tatcgtaaga ttcccttcatt ttcagagacc 240
tcctcaattt tgtcttcaag ttcattcatta atctctcaaa tcccatcatc tccactctgt 300
atttcttctc aatttaattg cct 323

```

```

<210> 71
<211> 326
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c19-4-22

```

```

<220>
<221> misc_feature
<222> (111)..(323)
<223> n can be any nucleotide

```

```

<400> 71
taaaggatat tgaaaagtaa atcctgcaag cacatataaa ggtatgtttc tacaaaaaca 60
taaatcgtat aggtagaaat gaaaggcggg ctgagagga aagtgcagca nagtgatctc 120
ctgataggac ttctgaacca catnctacgt nggctttaaa gcactcaaag ccactactgg 180
agaaacagca ctctccactt gtatctcagg aatgcactat aagaaaatct antatactan 240
ctggacaata taataggtag gtatttaagt ggaaaagggt aaagggacaa gccattatc 300
taccatgttt tgaactgcgc acncgg 326

```

```

<210> 72
<211> 256
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c19-5-1

```

```

<220>
<221> misc_feature
<222> (25)..(220)
<223> n can be any nucleotide

```

```

<400> 72
atatacatct ggagcaaadc acgantttta atacaaaact caccctacaa aacatggant 60
cnccactgca tcttaggcac ntggacagca anaaaacaag caanttgttt ggccgcctnc 120
actattttaca ttactctat tttgaatttt ttaatcaatt tgattatntt atttggttat 180
tttanttcta cacttaatct gggattgctg attcagtttn gacttcttta cttagtattc 240
tcacttcgtc actggc 256

```

```

<210> 73
<211> 257
<212> DNA
<213> Nicotiana tabacum

```

```

<220>

```

<223> plasmid c19-5-4

<220>

<221> misc_feature

<222> (25)..(199)

<223> n can be any nucleotide

<400> 73

```
atttaattga ttagcggaaa atctnctttt gtttnggttt atattgcaca ttctcatgga 60
tatttttact atttgtttca tagtttaaca tcagcaagtg ctttcttatt ctggtatatt 120
gacgccaatg tantaggctt tgactttcctt ttaaacattg ttgttggtga catctaaagg 180
ttctctaaat ttgaatttnc actcttcaat ttgcttcctt tgaatgcaat attgctcgtc 240
agctttgcat ctttgtg                                     257
```

<210> 74

<211> 242

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c19-6-3

<220>

<221> misc_feature

<222> (70)..(210)

<223> n can be any nucleotide

<400> 74

```
caaactagga tgtctgaaag actgaaagcg ttagaagtaa ataagtactc atttacagcg 60
gctgggtgtn acataccaaa acaaaacatt caacaagatt gtatccaaaa gaatacctgg 120
aaaaattaca acacttgga actgaanaac cttanctgac cccagaaaac cattaaggt 180
aatatagcgc atctttacac gggtgtgaan atcacaaaat atcctcaatt tgttgcctaa 240
ct                                                         242
```

<210> 75

<211> 257

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c19-7-4 ; homology with putative
translation initiation factor 2B beta sub. NIFb

<220>

<221> misc_feature

<222> (11)..(11)

<223> n can be any nucleotide

<220>

<221> misc_feature

<222> (176)..(176)

<223> n can be any nucleotide

<400> 75

```
ataaactata ntaccattta gttgttgata atacgaatga ataaaccatt cgacaactta 60
```

```

acttttcagt caacaatagc atacgtgttg tctaataata ccacaaagga aaaccaccat 120
caagtagtac tctgcatatc cgaaatcaca aaactccagc acaaactctaa tctcanaatc 180
aatctacaaa ctccaaaaat cgcgatgctc tcttcatctg tttattgcag tcagtataat 240
gtaggtgcaa catcttg                                     257

```

```

<210> 76
<211> 384
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c2-1-10

```

```

<400> 76
gtgcagtaaa ctgaataggt tgacagagct agctgccaga tgactcttca tgcggtaggg 60
tttttcttat attactgcca tacagtattg gagctggaga tatcaagacc gtgctagctc 120
tgctgattag ttgtccgtat agatgacagt gatacataag ctgacttgga atccaagtat 180
ctggtctacc acaattgatt ttctttggga ttactcaca atattcttaa acgatttttg 240
ccggataaat gcaatattca ttgattgtaa tcaatcacta caaggaggat gaagaatata 300
ttcttaaagt atttttgcca gataaatgta atattcatct atatggatag atgaattctt 360
gatcaaatgt aagttcatgt cgat                                     384

```

```

<210> 77
<211> 181
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c2-11-14

```

```

<400> 77
tgatgcgcat atcaaaacta attattatcc aagccaaagc tatcctttgc cagttgcttg 60
ataacacata tcttttgtgc ttgattttta aatacatgag gtgtatttgc cgttgagtca 120
tattgcagcg gtgttcaatg taatttacac tgatacaaaa taaggtaatt tgtatattgt 180
g                                     181

```

```

<210> 78
<211> 182
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c2-11-2

```

```

<400> 78
aggaaatact gcatcaaacg gacaacaact cgatgcaggt gaagaatcct agtgctgtaa 60
ttgctaataa caagcacata gtttgtctgc tgtcttttta ctttaatat ttcccctttg 120
aagttgttgg aatcgtatta attttgtag ttaaaggcgg atcaatcaat atatctttcc 180
tg                                     182

```

```

<210> 79
<211> 359
<212> DNA

```

<213> Nicotiana tabacum

<220>

<223> plasmid c2-2-1

<400> 79

```
aacgggatac tgaatggtag gacggcctct tcttcgacca ctagcaacca tgtagccgac 60
caagttcaaa gatgaaacat actgtatattt gccagtggac attctttttg tgtggcttat 120
ccttataggt ttttgttcat tatctctggt attccttgtc aaagtacatt atgatggcag 180
acctcttttag agagatcctc aaagtttatg tgttgtttat ttatatcatt ttttctcgat 240
agttaaatat taggggatat tcttctttcg gccattgat tttggttgaa ggtcttgaat 300
gtcgcaagaa atagctcagt ttaaaggagt tgatgaatgt tctctccttc tctgccgcc 359
```

<210> 80

<211> 356

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c2-2-3

<400> 80

```
agaaatatag ggtaaggctg cgtataatag attcttgtgg ttcgaccctt ccctggcacc 60
cgagcttagt gcaccgggtt gcccttttat ttcagaagat gtatattatg aactcttggg 120
ttagattgag ttcagattat tttttaagaa attatttttt agcaaagagt aagctcactc 180
tttgttctta ttagtaataa gtttgtttaag ttatcctttc acaaatgata tacagtattg 240
gtgtgaggtg tgtgagggtc atattcttgt gtattaattg ttgcaatgca acgtgtaatt 300
gctcaattgg ccagattggg tttctcttct taatgctaag cactacttgt tatcat 356
```

<210> 81

<211> 338

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c2-4-1

<400> 81

```
gtggtttccg tgaatcgtga cgccaaatat cagttagcaa tggtaactaa ctccatggca 60
acatactgga aatgagtgtg aaatctgaat ttcagagttg gtgtgacttc ttcttgtata 120
gctggtggtt gttaacttgt cctagattca ctctcactct cattgggtgtg gtccctgtgc 180
tagtgacggg tcttattgtg gctctttaga gttgatgtta tatttactct acctatctgt 240
tgaagtttat ccaattggta tacttttttt gggttgtttt aacaaagtgc tattcgaatt 300
tgtaatttca atttcgatca aaccacctta aatctgct 338
```

<210> 82

<211> 336

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c2-5-6

<400> 82

```

gggtggcctaa tttgcagttt tgatttagtg tcatcattag ctatcttctg gattgaagtt 60
aaatgccgga aatctgtttg taacctcaat cttcaacaaa tcaattgaaa tatcacttca 120
aggcacttca ggtcctcctt gcacgggttg agagcttcca acagatttcg gagattcact 180
aggtagctgc ttggcattcg cagcccaatg cttctccctc tatcttattt tctcctattt 240
tagttctgta atagactatg tagactcttt ctgtttttaa tcgggttagta gatattcatg 300
actggtgaca ccccgttgtc gggctatgtc tatttc 336

```

```

<210> 83
<211> 256
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c2-6-5

```

```

<400> 83
ttaaagaatg ttttgtctaa tcttgtgctg gctttaatgc acgtcaaagt ttgctgtcat 60
cccttgga tagcggacaa caaatctgcc agctactgat gctgatgggt atttgtttta 120
gtggagaagt aaataggatt ttatatctaa tattattgcc tttcatagtt ctcagagtat 180
atgtgtagaa caagcacagc tgcaaattgt tattactaat tttatggtgg aaatctggtg 240
aaagtatttt tctttt 256

```

```

<210> 84
<211> 254
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c2-7-1 ; homology with patatin 3'-strand

```

```

<400> 84
atgatgtcgg ttttgcatg tggaatgca agttttactt tggcagattg ctccaagtcc 60
ttagggggtg atggatttcc cctacaacag aattactatt tttcctttct ttttatgttg 120
ttttggctta gaaggatgat tttatttatt taacacaacc aaaagtctac ataatcctta 180
gcatatttca aatttacata gagggatatt tctattgaaa tttatccctt aacgttacaa 240
gcgcttattc tttt 254

```

```

<210> 85
<211> 219
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c2-9-14

```

```

<400> 85
gggaatacat tgggtttgtc gtttgtttgt ttggatgtta gtagaccggc aagatatcta 60
gcattttgct tctgttaaca tggacattat ggatttgtta attcaactga ctacttgtac 120
acgtctctct ggacattcgg gttattactt ggtacaagtt aataacactt atgctctctc 180
ttattttatg ctttctgatg aatattcctt ttccctctg 219

```

```

<210> 86
<211> 337

```

<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c20-1-4 ; homology with DNA-binding
protein (pabf) [I]

<400> 86
gaagatgcgc ttagacttgg aggcagtgtg gctacctacc tctaattgtca atttgttagg 60
ttaaagcagg atttgatatt ttgttgcaca gtatgaagta tgttttagtt ctaactgtat 120
tagcagttga tttcgtcatt tgataattac cttattctgc taatttggtt aatgacaatt 180
aagggggaga caaaatcatg ctcggtgggct atatgtactg ttgtttgagt atgttgaatg 240
gatggaaatg cctttgttag atagatgtat aatgccggca ttatccctca tcaacagttg 300
cctttgcaaa tgtcgtaaaa gcatttgaat tttattg 337

<210> 87
<211> 337
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c3-2-4

<400> 87
aaagcaactc cacgttagtg ttataaaacg agtttaataa agtttgactc tgatactatg 60
tgaaagaatc taagcactaa aacaaaacct ttaggcaata gtataacatt gagatgtttc 120
ctttctaatt taaagaagga tagaagttca gtgcactctg ctcaacaagat gtagtacaag 180
gattcttgaa ccaaggattt tgatggactt catgttgaga ttggaaaact gaattcatta 240
ctggagatca ttgttcatgg ccctataaat ttgaaatttc aaagatacaa atcaaattac 300
ttatatgtgg catacaacaa gacactacta atacata 337

<210> 88
<211> 92
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c3-3-6

<400> 88
ggttgaccgt gcttaatata ggcagggagg ttgataatta tataaagcac atctgaatgt 60
taatccacgt aagaacttaa tttgattgct tt 92

<210> 89
<211> 257
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c3-4-1

<400> 89
gcatagactt ttttccacca tcagattagt tggcttgcca taagagacga cttcttttag 60
caaatctata tgataacctg aagaatatag taagaattaa tctgctataa ccagttaa 120

```

agtactaatt acaacttttt ttttaaagtt gtttggttaa catttttcat gccattttgt 180
ttgtcaagta ccgaaaaaac gtgggttggc tacaaaagtc ttaacctggc tagctagcta 240
cctgctactg agtatct 257

```

```

<210> 90
<211> 345
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c4-1-2

```

```

<220>
<221> misc_feature
<222> (44)..(45)
<223> n can be any nucleotide

```

```

<400> 90
taatcaaat tggtaaaaca atccaaacca aaaaaaacgg tttntgttg ctcttgtttg 60
aaatatattc gaatgttctt taatacctag cgtatgtaat aataaaaatg tactcttggt 120
gctcttgttt gtattgggat tatttaatta tatttgagat ttataattta ttaaaggcta 180
atcgaatagt gttgactgat gtttggaata tgatcatcaga tatcaatgtt ggaagccatt 240
tagctcagta aaattatttt aactaaatca aaagaataaa atactatagg ttggagtaaa 300
taagttgtta atggtagtgt ttttctattt agtcatttgg gatta 345

```

```

<210> 91
<211> 193
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c4-3-3

```

```

<400> 91
tactcacggg gattaatctc atcacggttt caaatggaca aacaattatt ttacatggag 60
agtagagacc ctccagcttc tttttattgt tagtagtagt gtgaattctc gtgttctcaa 120
tttgatagt tatggtttct aacttatgta ttagatcatt ttaacaagca gcacagagat 180
caaattgttc act 193

```

```

<210> 92
<211> 340
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c5-1-2

```

```

<400> 92
aaactagtg tttatttggt tcatcgtgaa tatggagcag ctgcaataat atcttcacaa 60
tagtactcat tgactagatt tgacacttcg gatgaagcca aggcatcttc agagttttgg 120
attctacaat gtttccaagt tatactctgt tttaatcgtt tctgcttgta gcttaattgt 180
cttttgatgc tgtataccgt gtccaagtat gattgtagtt ttagggaatt tcagattgca 240
aggcctttat ttactcggat caaatttgta attgctagtc cccttttttt gagaaattct 300
gtatgtccca tttctttctt ccaatggaac tttcacttta 340

```

<210> 93
<211> 343
<212> DNA
<213> *Nicotiana tabacum*

<220>
<223> plasmid c6-8-13

<400> 93
agcagaaaga caagtgtggt tctggagcca tgaaatcgcc cgagtactct gcctcctctt 60
gttctggtcc aatgcagttt tccactggtg ttgctgtggc gtaagtcttg tatggtacgc 120
aactcaaact aataaataag gaaactgttt atacagcttt tggaaagcta acccaataag 180
at ttggtcat aagtagatgg gttatgttca gttttgagca ggcaatctct ctgaatggaa 240
tg ttgttcag cctgccccta ttgagaggaa gaggacttct tatttttctt aaacccatag 300
acaagttcat ctataaaaat taatcattat tctttctttc ctt 343

<210> 94
<211> 337
<212> DNA
<213> *Nicotiana tabacum*

<220>
<223> plasmid c6-8-4

<400> 94
gataggtatc agatggacct tataagtgag aaaactccta atgcaatcat ctttacttat 60
tg gaaatatt tatagtgtga cagatacttg gccaaagtgc acagttatat gtactattta 120
at gaacaagt tttatggtgt ttggtatatg atgtaatttg ttacttcaga atttattctt 180
ct gagtgttt cactggtagc atgatttaca agctaattgt atccattttc tgagggatag 240
ga tacagtta gattgctttt caatatctga tttgacactt tgccctatga ttcttggttt 300
gg aatggata caagcaagct tattgctgtt ctgattg 337

<210> 95
<211> 294
<212> DNA
<213> *Nicotiana tabacum*

<220>
<223> plasmid c6-8-9

<220>
<221> misc_feature
<222> (165)..(291)
<223> n can be any nucleotide

<400> 95
atctacacga gcttcgtatg tgtaagacta ctggatcaga ttatccactg ctctgatacc 60
at attaaaaat cagtgcgta atgaagcaat tgaactcgag gtatgctcca attatggaaa 120
tg gaaacttg gcgaagaagc cccaaattag gggcatgtgc gacannngag aagaagagaa 180
ct tagaagtg aaagtctcaa ttgtattgac tatgtaatgt cgtatatatc agtgttttta 240
aa ggtgtggc gtaaggctag gcattttaca catacctcag cggggcgtaa nata 294

<210> 96
 <211> 338
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c7-1-2

<220>
 <221> misc_feature
 <222> (37)..(234)
 <223> n can be any nucleotide

<400> 96
 caaaggactg tgcttcatag tgggtgctggg agaggtnttg cagccactga cacatcaagc 60
 accaacgagg aaaaggaatt gaaagaaaat aataaattcg atgtaggatc aaatttctat 120
 ttggttgggt taattttant gaagttgata ctgcaacagg agaatgacag tcctttgaaa 180
 tttnaagtta ctattaatcc aacaagagat tgcgaatatg ggaggtatga gatnatctct 240
 gtttctttac cgtcctttac atctgaaggc aacttagcat aggagttctt aaatgtatca 300
 aatatcaata ttttcagcag agttcatttg ttctttat 338

<210> 97
 <211> 341
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c7-1-6

<400> 97
 agtgaagggg gcaagagaag aaaaggaaaa gaagaaaatg tcagtcacaa acattcaagt 60
 gtttatatgt attcaacttt tatactttct ttcaaagtat ttttactttt gcagatgggt 120
 gaaagaaaaa gaaaagagtt tttccaaact cgagacagaa aaagaaaaga aaaagcattc 180
 ctctcttctg aatcttgatt gcgtcttttg tgtttgcgga caaatgtcct gagatgggtg 240
 aacttcacat ggtcgcgtgg tggtgtgctt tgtgataaaa tgtatttgtt atttatcatc 300
 tttctactat aaatcgaaat tttattaagt tgaagtcgtt a 341

<210> 98
 <211> 314
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c7-3-10

<400> 98
 atagcatata tatgttgaag cccctgctcc caactcaacc ccttcctttt cttacagcca 60
 ttaatataatt ttggaatagc tatttcctat tttaggaaaa aacgaccatg tattgttcat 120
 tgacaagtac tttcataccc tgcctcaaagc aatatgtgtt ttctcgtact tggaagttaa 180
 ttttgctgtg gaacaactct tgttagctta gtgttggtgg gtgagctata actcggcctg 240
 tgtgatttgt tacatttggt tgagcatttt ctcttatata agaagagaca gtgaggtgtc 300
 tgtctcatgg tcag 314

<210> 99

<211> 276
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-3-3 ; Arabidopsis genomic homology

<220>
<221> misc_feature
<222> (89)..(89)
<223> n can be any nucleotide

<220>
<221> misc_feature
<222> (186)..(186)
<223> n can be any nucleotide

<400> 99
ggctgagaag aagaagcgca aagctcagtt gcaggaggcc aatcggaataa aaatgaataa 60
gagagtagag cgtaaaatgg ctgcagttnc tagggataga gcatgggcag aaagactggc 120
agaactgaag aagctcgagg aagagaagaa ggcagccatg gcttgatggt tattgaacag 180
agtttngatc tgttaatttt ctctcttgtt tttgagagtg aaaaatata taatccctta 240
tttaatatggc acaattttct tcacacaatt tttatt 276

<210> 100
<211> 418
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-3-9

<220>
<221> misc_feature
<222> (3)..(409)
<223> n can be any nucleotide

<400> 100
acnaatnaga antaccacgt gnantgtcnt gntacngtna taagngaaga ggttcgatcc 60
ngntcatcnc aaatgncant ggccccgtgg naagctcagc cnngacaccg gantgtttgc 120
nngnggtntt attacagcta anntttattt ctccaaangn gataanagat ngttctgtga 180
nnaggntnng attgnatccg ccggaganca gaaagtnatt nttgcatcat anagtnggtn 240
agangtgact ccctntctcn tgtcngnata tntntattgg ngggggntnt tttagnattc 300
cagtncattc cganatatag atncanatt ncnatanntn tacnanngcg cccccgcncg 360
nntgtannnc atnngggaga tctcccanac gaggccggan gtagagtngg aaaatctc 418

<210> 101
<211> 244
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c8-1-5

<400> 101

```

ggaatatgca taatTTTgtt ttctTTTTtg tttaaaagag ttcaacctag ttttatctgc 60
cagaagagag aaacatcaag atgtgagcat cagacaagct tataatactc tctctatata 120
gatttctaca aagcttattt ttggtgaatg cttgtgttgt gtgtaatact tcaaccccat 180
ggaaatgcta cgtttattag ctctgtctgt ggcacccaaa tgaatcttga ttgtgtcatg 240
ttct
244

```

<210> 102

<211> 346

<212> DNA

<213> *Nicotiana tabacum*

<220>

<223> plasmid c9-1-4 ; homology with *Drosophila* heat shock protein 82

<400> 102

```

gaagtcgagg accgtgccca acggtcagca attacaagag taaatgcaga tgatgttcgg 60
gtcactgtat ccgcacctgc agctcgtgga gaagctaaca atgaacttat ggaattcatg 120
ggtcgagtag tgggtctgaa actatctcag atgactctcc aaagagggtg gaatagcaaa 180
tcaaagcttc ttgtagtggg ggatttgaca gctagacaag tatatgagaa actcttgga 240
gctgcccaac cttgagatgg ctccctgata cttttcttct ttgtcatttt ttccatggtt 300
gtaacattgg atttttagtt tcataaaatt gaattcagtt gtcttt
346

```

<210> 103

<211> 360

<212> DNA

<213> *Nicotiana tabacum*

<220>

<223> plasmid gl0-1-1 ; *Arabidopsis* genomic homology

<400> 103

```

gaacgagaac aaaccatctc aaaagtacat cgagatagtg actgaagata attttgaatt 60
ttggttcatt ggctttgtac gatatgaaaa agctttcttg aatttcaaaa aggctatttc 120
catcacgaat tagctagctg ttaggcatta gaatttttag ggttttaaag aggattcata 180
attctgtaat tgttcttttt tccttattaa atgttgaact ggtagcatct aatctatgct 240
tgttcatcat tttcttttct ctcaacggaa gaggatttga gatttatgag aattgaattt 300
tgtagattct gaaatttaaa gaatttctca acatatatat aagatttaga ccaaagttac 360

```

<210> 104

<211> 556

<212> DNA

<213> *Nicotiana tabacum*

<220>

<223> plasmid gl2-1-21 ; *Arabidopsis* genomic ABA-regulated gene cluster homology

<400> 104

```

ggtgggattt gactatgcat atcgcaaagc aatgaattcg actatgaaat tcatcacaag 60
ctcaaagaac aaggcgtata ctttttttag aacgactacc cccgatcact ttgagaatgg 120
tgaatggaat acgggaggtt attgtaatag aacaggaccc ttcaaacaag atgaggttga 180
cattggttat gtagatgagg tgatgcgcaa aattgaatta gaagaattcg agagtatatc 240
gagaacagaa tctgcagaca ggttgacaat gaaattgttc gataccactt tcctttcgct 300

```

```

gctgagacca gatgggcacc ctggagtcta caggcaatat cagccatttg ctaaagaaaa 360
tatgaacaaa aagattcaga atgattgtct acattgggtgc ttgcccggcc caatagattc 420
gtggaacgat gtaatgatgg aaatgttggt caccagttga aaatgggtgtg acattagatt 480
ttgattttgc tcccacaatt gtattgttca tctgcaaaag atgggtgcac actatttttc 540
accattgttt cctctc                                     556

```

<210> 105

<211> 579

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g12-1-5 ; Arabidopsis membrane related
protein CP5 homology

<400> 105

```

tattattcaa gttggtatat tggagaagtg gaatcaagta gaggtaacag ccagccgacg 60
cgatgtgaag tgattctatt ccatcatgaa gatatgggca tcccatggga aattgcaaaa 120
tttggggtaa agcaaggtat gtggggagct gtgaggaaga ttgagcgggg attccgtgcc 180
taccagaaag ctaaagcatc tggcttgaaa atatctcatt gtgcttttat ggctagagtt 240
aatacaaaaa ttgatcgaga atacttgaaag tcaatggaag atgatgagga ctcactctgaa 300
actgaattgc aagcttcacc tgcaaaacct gagggcatga acataccaaa gctgattatc 360
attggtggag ctgtggcagt tgcttgtacc cttaatcaag gaatcttacc caaggtgctt 420
ttgtttaatg ctgtgaaaag gtttggaat ataggaagga gagcatgtcc aaggacatga 480
catttgattc atgctgcatc tgcgcatttg tttttccct gtttaagcat tcacttttaa 540
gctctttata tatttaaaac aagcaagtgt tattttgtc                                     579

```

<210> 106

<211> 358

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g14-2-4 ; homology with vetaspiradiene
synthase PVS4 (sesquiterpene cyclase)

<400> 106

```

gatagcatgg aaggatgtga atgaaggaat tcttcgacca actcctgttt ctacagaaat 60
tctcactcgt attctcaatc tcgctcgtat tatagatgtc acttacaagc acaatcaaga 120
tggatacact catccagaaa aggttctaaa acctcacatc atcgctttac tgggtggactc 180
cattgaaatc taaaccattg agtgcttttt tcatctcggg gatcgtttta tttttatatt 240
taaataaagg atcagaactg tgtttctgtg ttcctcttta tataagcaag ttgagtttcc 300
tacttctgtt caaacctgtg gtttgttctt ggcgtctgaa taatataatt ttgtttgc 358

```

<210> 107

<211> 264

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g14-3-10

<220>

<221> misc_feature

<222> (219)..(220)

<223> n can be any nucleotide

<400> 107

```
caaagataaa gaaggctgga gttgtaagac aggagcttgc taagcttaag aaggacgctg 60
cttaagaact ctttgattag tgagatttgt atgataggag ttttggaaagt cgttggtgtt 120
tgctttttaga ttttggttca ttactggcaa gtcatttggg ttcattcttg gtgtcattga 180
agactcctag aaatcaattt cccaatagtt ttcatttggn ttatgatggt gaacattctc 240
ttcgacagaca cttcattttg ttgc 264
```

<210> 108

<211> 211

<212> DNA

<213> *Nicotiana tabacum*

<220>

<223> plasmid gl4-3-22 ; homology with orf 03 A.
thaliana

<400> 108

```
cttccatcaa gcagggactg gttgggggac tttatggtgt ggaaaccagc agttggtatg 60
gagaatagcc aatcattctg ggcaatttta acaatatgga tagctttggt tggagctgca 120
ctctttttgc aaaagtgaat catatacaag taaagctggt tattgtctag ctttctattc 180
tttattggta tatatagtct gatgtgtatt g 211
```

<210> 109

<211> 262

<212> DNA

<213> *Nicotiana tabacum*

<220>

<223> plasmid gl4-3-3 ; homology with sequence 161 from
patent EP0953640

<400> 109

```
acattataat aggatgtaaa gaatgaagca ggaagcagtt tcttactaga acttctacta 60
taattgtgga tttatatttg gttgttcatt cagaaagctt tgccaagtaa cttagaatta 120
gtgtttacat tttgatgtct ttgttttgat attactaaga agaaaagata ttggggaaaa 180
aagaaagcca gaccactgaa tggcaggtct gatatgaaaa ctggccatgt atagaaggat 240
atttcgttta tttcattttt tg 262
```

<210> 110

<211> 265

<212> DNA

<213> *Nicotiana tabacum*

<220>

<223> plasmid gl4-3-4

<400> 110

```
gcttcaagtg gatgatgatg atattaaggc catgattaaa ttgggccgtg gtgatgaaaa 60
tggtgggtgtg gtcacctttg aaggttttct ccaaattttg tctctttgat ttgttgcttt 120
gatgacgatg ataaatgtca gattaggtga acaagttttg gtttactttg tatttttcaa 180
tgattttgtt tactgtgctg cttcatatgc tattggctat tccgagaatt ctatttgaaa 240
```

acaaagaaga aaaagagttg ttccg

265

<210> 111
<211> 260
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-7

<400> 111
atgaagaaga agagggcggt ggtgatgact acattgagtt tgaggatgaa gacattgaca 60
aaatctaaat ctgaacgcaa agctgctgtt actgaggtcc gttataggcc tttctaattgt 120
tttgtggag ctttttccat aaacattgag agtgtatctt gtgtatcgtt tgaagttatg 180
tatcaaactt tgtgcattgt gagttttgta ttagatttat gcttccatga aatgaatgca 240
atattctagc tggtgtctac 260

<210> 112
<211> 469
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g15-1-37 ; Arabidopsis genomic homology

<400> 112
atattcctgg aaacatctca acttgcatca tccccacttc gtcaagatct accgccaagt 60
gtcatactgc accatcttta ctcacgcggg cctgaagaac tacaatcacc attgcaaaga 120
aatagactta ctccgacgca gtattcactc tggatggatt cacaagggga ggaccaaata 180
tggaaggta ttaaagctac tctggacgac tatgctgcta aggtacggtc aagaggggac 240
aaggaattta gtccgtgtcta tcctttgatg ctagaaatcg gctcttcttt atctgggaat 300
cgttagagga gctttgagag aatgcaaagc tcaaatcatc ttctcttggt atatgccctt 360
ccccatattt ttgtttcaat aatattgtca cagatgaaca catagcagac cgttatctat 420
gtttcgttta gtgtcttact ttctttatat attttacctc aattgattg 469

<210> 113
<211> 350
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g15-2-2 ;homology with ubiquitin [I] able
to induce HR-like lesions

<400> 113
gttgatgtcg ttgtgtcgtg ttgattgact gtgtctgttt ctggttggtg tcgtgatgtg 60
ctttgtctac tgaggctctca aagatgttct atgctatttc tgtttgctgt ttctcttatg 120
ttctctgttg tgaataaaga ttccgaattc tgtcctaaaa aaaaaaaaaa gaagtttatg 180
tatattggaa gaagcattgg tgcgtgcacc aagtcctatt tgatatatgg ctgtgttttt 240
gcttggctaa tttgtgttta aactttcttt ctatctgtgc tcaatatact cctgaacaga 300
ctgatgtacg attttaaagc tatgtatgta taaactctct tatcttttgc 350

<210> 114

<211> 345
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g15-3-11 ; homology with sequence 7 form
patent EP0953640 [I]

<400> 114
gtggatgaag ttaaggtgac ccctgttgct tagaagtaca cagagctttt gtaatgggtca 60
atagagtttt ttgcaatgct aatttcatac ttattaagct accactgtga ggcaattgct 120
gtattttacc tatgtgattg ctttaaacta tgaattagat gcctgctgtg agacttgtgt 180
actattgctt ttaaggaagt gtggatctag ttgaacttcc tctcctttac tatgtgcact 240
ttgatcctga ttcttagata gtcaagaagt aatatataaa attgtactac tataattcaa 300
atttttcatg tttcttgaag gatgaaatat aaatgagtta gtacc 345

<210> 115
<211> 344
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g15-3-7 ; Arabidopsis genomic homology

<400> 115
gatacatgga atgagttagt gtttgatctc ataggagag acttccagag tagacagagc 60
aatgcttcat aagaagaagg atccttaatg ctaaaaaaca ttttttgtgc ttctacagca 120
cagctacggg aagattattt atctctctcg aatggagttt agcttttttag ttactttaga 180
tctcttggtg tagctgggtg tgtaatctat gtttagatat ccacggtaag ataattccta 240
agttacacga aattttcaca ggtctcaagt atgtgtgcag ggatatttaa ctaaatacaa 300
acgttttctt tgcaataaaa tatttcatct gatttttccc tcgc 344

<210> 116
<211> 301
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g15-4-1

<400> 116
tgaatgttta atgttagaaa gtgaattact ctctttatgt ggtgtctgaa catatgttca 60
acattactct tcaaattacc aataattaat agtgcgacaa gttatagggt atagggtgat 120
gaaaaattgt ttccatcttg taaattatag tgctaaattt atcacacatc tgtgtgcacc 180
tatattatag tttctgcttt cattgaaaat gagtttcaag ttttctagtg gaattggata 240
tgtagtatag aagttggagg gttgcttttc attcttttga aagggtaaag caaacttaag 300
c 301

<210> 117
<211> 525
<212> DNA
<213> Nicotiana tabacum

<220>

<223> plasmid g17-2-13 ; homology with wrky (zinc finger
DNA binding protein)

<220>

<221> misc_feature

<222> (466)..(521)

<223> n can be any nucleotide

<400> 117

```
aagtggatat tttggatgat ggttatagat ggaggaaata cggacagaag gctgtcaaga 60
acaacagatt cccaagaagc tactaccgat gcacgcatca aggatgtaac gtgaagaaac 120
aagtacaaag gctgtcaaag gatgaaggag tagtagtaac tacttatgaa ggcatgcatt 180
cacatcccat tgagaagtcc acagataact ttgagcacat tttgactcag atgcaaactct 240
atgcttcctt ttgaaacgtc catcacttca atgcctaagg catgacactc aattagtcac 300
ttgtaaaata gtactacagt atattgtgta catgcgtttt gaacctagat gctatatattt 360
gaaataaaac gcaacttcat tagggaattt aatttgatca ttgtacaact aaaagtaatg 420
ttgctatttt tttgttttta tcactttgtt tttgccggag ccatgncttc attttaactc 480
tttcttttag aattaacaaa taattncatg ttggagaaga ncgtg 525
```

<210> 118

<211> 225

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g17-3-2

<400> 118

```
gaccaaata gcaaattgaa gaaatgctgg agatcaccac atacttccag gcaaagcaac 60
ctcaattttt gttacaaaaa gattttcttga ttaactttt gaaagtaaac acgtgtgtgt 120
agagaagtaa atgcaggcac tgggatttca atatcgtttc attgatgctg gtacagtagg 180
agattgaaac taaacatttt cttgaagttc agtacgtgtt cattg 225
```

<210> 119

<211> 412

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g18-4-7 ; homology with L18 (60S)
ribosomal protein

<400> 119

```
attgagaagg ctggaggaga atgcttgacc tttgatcagc ttgctcttag agcccctctc 60
gggcagaaca cgttactgct taggggtcca aagaactcgc gggaagctgt taaacacttt 120
ggtagagctc ctggtgtccc acacagccac acgaagcctt atgttcgggc aaagggaagg 180
aagtttgagc gagcaagagg gaaaagaaaag agcagagggt tcaaggtttg aggaattgcg 240
agtgtttgag tgcacgatga gagaatttct tttagaagggt tttccctacc tactttttac 300
catattagct tctttttctt gtcgaatttc ttatttcacc cctgtttctg tgacactcca 360
acctatagcc gattttgaat gcttttatta tctattctac gaaattaagc tg 412
```

<210> 120

<211> 373

<212> DNA

<213> *Nicotiana tabacum*

<220>

<223> plasmid gl8-5-1

<220>

<400> 120

```
acattatcaa gacgaaggca ataagtgggc ttactcattc ttactgaaaa acggggctgt 60
gaaatttggt gtaatcttca agaattgtact tgttgccatc aatagaaaag caaacaatat 120
tgtgttcagt tacagccttg ttgggtcttg ctgagagtta tttttctagt tcctgaaagt 180
tatcttgcaa gctatcatgt agctgtgttg taattttcac aggtttgagc tacagttgaa 240
gccagtaaca tgtgttgata ttatagctaa aataactaat gcttacctgc agtttccgtt 300
tgtgtggaat aaggagaaga attgatgtgt aagcatggct tctgtgagtt gactctatta 360
tctattgcat tac 373
```

<210> 121

<211> 390

<212> DNA

<213> *Nicotiana tabacum*

<220>

<223> plasmid gl8-5-12 ; homology with
capsanthin/capsorubin synthase, promoter region

<400> 121

```
ggttgcaagg gtgtatccga accctatattg cagaaaaatt atactgtata tacaagggtca 60
aaattatatt ttctgtttat atagttagat gttaaattgt cttggctttt tcgtgtattt 120
atctctttat attttgaatc ttcttggtga aaatcctagc tctgtacaca caaagagccg 180
acatgctgat ctctctctct ctctggacgg agagtcttct gaagtgattt tgtgcttctt 240
cagtgtgttt atagatcaat ttagtgtctt tgtcaaatgg atttctaagt gaaaaaagag 300
aaaaagtatt tcaatgcgtg tgacctacct tgcataaact ctgcatgatg gatatacaat 360
gtttctgctt gatatatgta tatgttttgg 390
```

<210> 122

<211> 381

<212> DNA

<213> *Nicotiana tabacum*

<220>

<223> plasmid gl8-6-12

<400> 122

```
tcttgcacga ggctggttat acaagggact catggttgct tctgaatgac ttcattaaga 60
tcctggacca ccctggtttg aagatggagg tagaagtacc aattgactag ttacacctgc 120
aatttcattt actataattc agatgtatct gtgtacaagg cagccgtggt attctgtttt 180
gttgaaattcg cgcacctgca ttctctgctt gttttttgtt aaatctcttt ctttttcctt 240
cttttgcccc cgtttttatgt ctgtttgcgc ggcagggaca gaaacagaga aaccgccgtg 300
taattaagat aaaagctttc agcttatcca gaagatcttg aatatgctat aattttaatc 360
tctcacaac tgtgtatctt t 381
```

<210> 123

<211> 356

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g18-6-5

<400> 123

```
ttagagaaaa agagagagga aaatcgtaga aaaatcttca aaaaactgag ttgagtaaaa 60
tttcaaaaaa ttttagttgt catttctctt ctggtctttc ctttccagtc gatctcttct 120
tcagaaaaca aaaaaaaatg gttcaacttt agttttgagt ccagatttga tctcatttct 180
ttgctagagt ttcgtttgct gttatttgct ggttttttgc tttaccctg gctgaacttc 240
cttcactctt atttctgctc tctaccagct atttcgagct ttatttgta agtattctag 300
gtacacactt tcaaatctgt actgtttctt catgaaaagg gctgaaaatt ttgaat 356
```

<210> 124

<211> 293

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g18-7-5 ; Arabidopsis genomic homology

<400> 124

```
aagaaaagta gcaccagggg cttgtccttg ttgtggagga aaagtacaag ctgtagatgt 60
agaaggccgt ttcagatttt gctttctccc tatttgcttt aggttcaaga ggaagtatct 120
ctgtactctc tgttctaagc gtttggtttt gtattcttga tctccctatt ttcctcttgt 180
aatttctact ctcaattttt tgaacagcat cctataagtg taattattta tttgaaatag 240
tgtttgagag ttgttcattt gctcaagaat atatgaaact tttgtagttg tgc 293
```

<210> 125

<211> 259

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g18-8-7

<220>

<221> misc_feature

<222> (104)..(104)

<223> n can be any nucleotide

<400> 125

```
tgaagatgta gataaattgc tggaagatat aggggatgat gttggtgctg atgatggatga 60
cgatgaaaac tagaatgatg ttttttttct caagtaaatt tatntcattg tatttcttgt 120
tagtttttct cttctccact cccctctgtt tttctgtggc gcatagggtg tacattgtaa 180
aaatttccca ataccaacat aatttaagga tgtaaaccat cttcttgctt tgcttgtaat 240
ttctctacta gggttgcctt 259
```

<210> 126

<211> 491

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g19-1-5 ; Arabidopsis genomic homology

<220>

<221> misc_feature

<222> (485)..(485)

<223> n can be any nucleotide

<400> 126

```
ggttttaata agcttattgg tggttggttg ttcgagtttt ttggttactt taggagagggc 60
aagtggtagg tggacgagtt ttgggggttat atttcaaata gtagtgagtt caggatttgc 120
aactctgtta atgcttcaga gtcttgctgt gaacgtggtg ttgtatatgt attgcaagggc 180
atatcgtggg gagctggcgt ttgagatcgc ggaggagttt gcgagtcagt atgtgtgttt 240
gccttttgat aatgagaagg ttcctcatct tgtttgtgtt gttcaagatt gaatgtgcct 300
aaggtcagtg agattatgtt aggatgatgc agttagtagt ttgaagaagt agtgttttgt 360
tttactcgta gcatgtatat agtttcttgt ttgttagata aatgattgaa gatgtgtgtt 420
acctgttggc aatgtgcata tttatatgta aaaaaagctt aatacctgtt atgaaattcc 480
ctccnagttt t                                     .                               491
```

<210> 127

<211> 485

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g19-1-6

<220>

<221> misc_feature

<222> (467)..(467)

<223> n can be any nucleotide

<400> 127

```
taggaaatga cctttgcagg agttaaatca tataaatatt tttttggact gcaaataatg 60
ataatttttc tttttctaac caaagcaaaa taatatcatt tgtgaaattc agtcggtgta 120
cctgaacatt attagtatta aaatggagaa atgagagAAC acgtatggcc actagagata 180
ttaaagctac ctAAAtatga caatagatga agcagaggac agtataatat aattttcttt 240
taactataac atacattgcc ccctttatag atcaaaagttt ttctactatt atttaattta 300
ttactataat aatcatctct ctctaggcgg ctagttagga ctatgctcaa cttgcaatat 360
ttaattttgt tttcatgttg ttcctttttc tggatgatgt tttaactgtc gaaaaaattg 420
agagctaagt tgcattggtc tgagttcgaa ggattaaaag caatgtnaat caattggctc 480
tatgc                                     .                               485
```

<210> 128

<211> 484

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g19-1-7 ; Arabidopsis genomic homology

<400> 128

```
ggaggaaaga tctaggaatt tttccgagtt tgaacaattc ttggttgatc gtttctaccg 60
tcaatgaagg cagaaacagc ggttttgaat ccacctctca tctcttttga caacaagagg 120
gatgcttatg gatttgctgt acgacctcag catgtacaaa gataccgtga atatgcta 180
atctacaagg aagaagagga agagaggtct gatagggtgga acgatttttt ggagcgtcaa 240
```

```
gcagagtctg ctcagttacc cataaatggg atatctgcag acaaaagttc tactaatcct 300
ggtgccaaac catttagtca ggaggttaagt tgtgatgcac agaacgggga agaagggtcaa 360
cttgaaaatg caactgagaa ggatgtcata ctgacctctg tggagaggaa aattttgtcag 420
actcagatgt ggacggaaat tagaccctct ctacaggcag ttgaggatat gatgaacact 480
cgtg 484
```

```
<210> 129
<211> 224
<212> DNA
<213> Nicotiana tabacum
```

```
<220>
<223> plasmid g19-2-1
```

```
<400> 129
tttttttttt ttgggtggcg gaggaaagcg tgtggaaaaa aagaaagaaa aaagagaacc 60
atagagttaa aggccagatc atgtctgcta tgagtcatca tctgttggtg gaagagaatt 120
cacttgttta attttacttc tcatatttta tatcatggga tttcatgttg gatggatgga 180
ccagtgtgta tgtcaaatta attcttattg cgaaaaaaaa aaaa 224
```

```
<210> 130
<211> 198
<212> DNA
<213> Nicotiana tabacum
```

```
<220>
<223> plasmid g19-2-9
```

```
<400> 130
ccagtgtaat tggactttgc gcaattgaga gacaaggggt tagagggtata tacgtgattg 60
aagatcgtga tctatcttgt tatctctcat ttttttgaga tttttctctt cttctttttc 120
cccaaatctg taattgatga gattctagac agtggttagtg tataatcact agataatcta 180
tgtataatca gtttatcc 198
```

```
<210> 131
<211> 204
<212> DNA
<213> Nicotiana tabacum
```

```
<220>
<223> plasmid g2-1-2 ; homology with 5-epi-aristolochene
      synthase (sesquiterpene cyclase) [I]
```

```
<400> 131
ggactccatc gaagtttgag ctgccaatg ttgctcatct taaagaaact tcattcttct 60
gtgttgagaa agtagttata tatgtttttt taaattgtat aattaagttg ttaggaagct 120
ggttttgcga ttgtgcagtg gacttcctaa ctaggacctc cttgtaagaa gtaatcttca 180
agtgttatga attcacttgc attg 204
```

```
<210> 132
<211> 313
<212> DNA
<213> Nicotiana tabacum
```

<220>

<223> plasmid g20-2-20 ; Arabidopsis genomic homology

<400> 132

```
tgcgagaaag accaagaaat ttgtattaga gcaaaaaatg gtgcttgggt gatttcgagg 60
gtgacacgag ggaaggagct ctatatggta cttgagaaag ccaatgagac ccttccttat 120
gcctctgaag ctgttgaaaa gttcagtgac aggtattgca gtggcgcttt ttctttgtaa 180
gagggaaact agatttttgt attgccgaga cacaggattc atacaaaaga catagctaca 240
tatcttatgt tgttgtaaat tcaactttgt ttgtactgtt tataaataaa taaaaacttg 300
atcctctect ctt                                     313
```

<210> 133

<211> 315

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g20-2-29

<400> 133

```
ttgcaatgaa ctttgtaact aaggtgggct ataaagaagg tttgggaact tcttatattt 60
agttgtttac gagacaaatt cgtgctttcc ttggtttatca agaaaagaat tgggtcaactt 120
aatgaagcat gtctccacac tgatctatct attctgattt ccagtgtaac agcttttttg 180
gccattacag tggttatttg atgatcacta gcattatcat atctagttaa gtaaacacgt 240
caagtcaatt gatccattca actgtaacta tgctgaattt tacttatgga aaattcggaa 300
aatactattt acttc                                     315
```

<210> 134

<211> 315

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g20-2-31

<400> 134

```
agaatatagc tactacaagg tggttctccc agtagatcaa ctcaaagcca ttactccgtc 60
aactatgctg tcaagaattt gcaagggtgca ttgctgggtc atcattcgta gctagcgtgt 120
cattttcttg gtcatttcag atgaggtccg tgacactggg gcttgctttt gttgtagata 180
aaattctgta aagtatgcac atctgggtga ttgattgttg catacatgct aatttatcag 240
cggtttggtg tcttgtgtac atctgtttcc tgaatttttt attatctttt agtattactt 300
tggttggttc gattg                                     315
```

<210> 135

<211> 483

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g3-1-1 ; Arabidopsis genomic homology

<400> 135

```
attttgagac cagaagggaa gtcattgtc cgtgacaaag tggaagctgt aaccgaatta 60
```

```

gaaagcatgt tcaagtctat gcattatgaa atccgtatga cctattcaaa ggacaaggaa 120
ggattgttgt gtgtgcagaa aacaatgtgg cgaccaacgg aggttgagac actaactaat 180
gcccttgctt agctgcttag cgtgtgtgcg gatgctggtt gtatatcatt cgagaggctt 240
tcatgccacg gtgactagat agtttttcga ttaaattctt gttactgtat tcttgtcagg 300
ctaccgtgta ccattccata gcaaaattag tgctattatc actatatatt tgtggaaagt 360
aagttttgta atattatgtc attagttgtg gaggaggtgg acattcttgg aattgtaaatt 420
gccattggtt taggacgggtg gtaaaaattc aaaaacacca gaatgaaatt cgttttcaga 480
gcg 483

```

<210> 136

<211> 553

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g3-1-4 ; homology with ADP-ribosylation factor

<400> 136

```

atagcaatga cagagaccgt gttgtggagg caagagatga attgcacagg atgttgaacg 60
aggatgagct tcgggatgct gtgctgcttg tgtttgctaa caaacaagat cttcctaattg 120
caatgaatgc tgctgaaata actgataagc ttggactcca ctctctcagg cagcgctact 180
ggtacatcca gagcacttgt gcaacttctg gagagggact ttatgagggg cttgattggc 240
tttctaacaa tattgctaac aaggcctaaa ccaacgtaga gttgttgagg gttgatcctg 300
gatgcaggcg ggtttttatc tagttctttt tccttttttt cccgaacatt cccagaatct 360
gtgtggttat gaatatccct tgaaagtgat ttgcttcttg gtaggacctt ttgaaatggt 420
tttgtaatac agtgggttga tatatgtaat tgtttgttta gtttaaagta taatgctata 480
atgtgtaaca gagattagat gtttgatggt tcattggtaa atggtaaatg tatacttccc 540
tgtttgttcc ttc 553

```

<210> 137

<211> 501

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g6-2-13 ; homology with ACC oxidase

<400> 137

```

gagctctggt aattaacatt ggcgatgctc ttcaaataat gagcaatgga cgatacaaga 60
gtattgagca tcgagttatg gctaattggca gtaataatag gatttctgtg ccaatttttg 120
tgaaccctaa gcctagtgat gtaattggtc ctttggcaga agtgctagag aatggagagg 180
aaccaattta caaacaagtt ctttactcag attatgtcaa gcatttcttt aggaaagctc 240
atgatgggaa agacactggt gatttttgcta aaatcaagta gaaattagtg gatctgctcg 300
aagaataaga agtgcgctta tattaagcta atgtattttt ctttcatgta tttttagtta 360
cgactactca gcaatttaaa aaaaaagaag agatagtctc atactgcaaa gtataggaga 420
atatttttgg gattaattag gtgttcgaat tttgtaccgg ataaattata attgagctgc 480
tgatattatg gcaaatttag c 501

```

<210> 138

<211> 373

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g6-3-7 ; homology with ATP citrate lyase

<400> 138

```
aaatagtaga gatcggttac ctgaatgggc tgtttgtgct ggcacgttct attggtctta 60
tcgggcacac atttgatcag aagagattga agcagcctct ataccgtcac ccatgggaag 120
atgttctcta caccaagtga agacgtcccc aatagcagca cgcagaaagt cgcctgcttc 180
ctatccagca ttttatcgaa aagtgtttgt ttagtcattt gttgtgatca ttcttcttgt 240
tttctgctag tattttgtac tcctaagaac ttgctaagca tttctgtaag ttgttataag 300
agacaactct tttagtttca caccaagagt ttctttcaat tcctatatat caaagaaata 360
acacattcat tgt                                     373
```

<210> 139

<211> 301

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g6-4-4

<400> 139

```
gttgggggaa aaggcaaaaa gatgaagaaa aaggcaatgg aatggaagga attgactgaa 60
gcatctgcta aagaacattc agggtcattc tatgtgaaca ttgagaaggt ggtcaatgat 120
attcttcttt cgtccaaaca ttaagttaaa taagttacta catcatttaa tcttctttaa 180
atttcattct tgtgttcttg taagtctttt tcatacttat ttcccttctt actttcgttt 240
tgcatgtgca cagtgttaagg ttggaagcaa ataatatatc ctgcttaatg tcgtttgggc 300
g                                     301
```

<210> 140

<211> 299

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g6-4-5

<400> 140

```
aggttataga tgaaagacca atggcttttag taactgatgc tgttgcaaat gaagccaaag 60
ataaaggctc aagctagaaa ttgcagtaat actgatttta ttgctgtctt ctttaacatt 120
accatcacta actagttctc cttttttctt actgggtgat ttactttcaa gtattttatt 180
tgatgaggcg atatctcatt acttttgttt ttccagttgt ttgcttttagt gaattttatat 240
gctggaagga tttgaggtat tagatagaaa gcatcttctg atttaacttc aattatgtg 299
```

<210> 141

<211> 356

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g7-1-1 ; homology with a A. thaliana gene
homologous to MEI2 (meiotic regulator)

<400> 141

```
cagtggagga ctcgaaatgg aacctgatga tcaaaataat ttgcttaatg gtattgcaaa 60
```

cttaagcatg tcttatagtt atccaaatgg tgctgcaact gttgtcgggg aacacccata 120
 tggagagcat ccgtcaagga cattattcgt tcgaaatatt aacagcaacg tagaggactc 180
 agagttgaaa tcgctctttg aagtagtgct taacttacca gtttctttaa atttgcctct 240
 gttaattagc tatccttttt cgtacttcct ttattgcagt tgaaatgctt gtttctcatt 300
 ttgtttgtgc aagagatatt ttctttttgga cgacttcata tgcttgaaca ttgttc 356

<210> 142
 <211> 350
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g7-1-4

<400> 142
 gctggtgatc aaggcttttg agatatcaaa gataaaatta tgataatgaa tttcaagaat 60
 tccaatggcc agaatttgtc aaagaattca gatttatgga atttggaaga gtgaagaaga 120
 gggaaagatt ggaaaacatc tttattgatc acttctgcaa acaacaacga gtagaggctg 180
 atttagaatt taaagtttaa gagtttttat aaatttagag ttaaattatt gtatatattt 240
 aatgaattgt ttaatatata tacaatatcg tcaatagggt attatacaaa tgataagttt 300
 ttgtagggag tgtaaaggaa aaagttttga aaaagaggag gatttgtttc 350

<210> 143
 <211> 481
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g9-2-2 ; homology with P glycoprotein-MDRP
 (ATP binding cassette protein)

<400> 143
 gcgagggcca tagtgaaaaa tccgaaaatc ctactattgg atgaggcgac gagcgcattg 60
 gatgcagaat cagagagatt agttcaagat gcacttgacc gggatgatgg aaatcgtaca 120
 accgtggtgg tagcacatag attatcaacc attaaaggag cagatgtaat tgctgtagtc 180
 aaaaatggag tgatcgtgga gaaagggaag catgagactc ttatcaacat caaagatggg 240
 ttttatgcct ctttggtggc cctccacacg cgtgcttctt agttctactt ttttttcatt 300
 aagtaaattg tattcatttt aatttcgtta tctttttgac ttttgctgaa gaagagtttc 360
 tttaatagtg tactgcaact catataaagc atagtatagt agcattcttc aattaccaa 420
 tgagagaagc aagtaaactt gcctccccga cttgacttga tgtgttctgg ttattaagtt 480
 c 481

<210> 144
 <211> 480
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g9-2-6

<400> 144
 agcaggacta gtcaagttgc atcttcacat tagaaatgct tgtatatatg tgtatcagcc 60
 tatcaggtag atgtgctaga aagtttttag gagcagatac aaccctggaa acctgtacag 120
 cttcttacgt cccttttata cctgtactat aagtaggtag gtggtggcct gaaatcccat 180


```

aagccaaaaa aaatatacaa gtaagcttca ccatgctcca ttacttagaa actgtacagc 240
ttgtgattta ccaaatatgt ctacattagt cctaataatt ccttagatat acgtagccta 300
agtattaagt caaacctgag tttttcgaag ggaaactttt tgtagcaatt cccttgatgt 360
tggtgactaa cttctcagca gttgcaagtg aatttcattt attgtttgct attttcctgc 420
tgcgtatggt ctctcttaaa attgtaaaat gtttctgttt gtttcacacc agcttcatcc 480

```

<210> 145

<211> 447

<212> DNA

<213> *Nicotiana tabacum*

<220>

<223> plasmid g9-3-17

<400> 145

```

tggggacagc aaaacctcct tgggtgtgcc agtgcaaaga ttcaagtgtg acattaaaca 60
gggaacatgc tcagggaaaag ctgaagatcg tagatgtctg aagttagttt tcccacgttt 120
tcactatttt agcagagatc cagaaggaag aggaggaaaa gcgttctacc ttaagcagct 180
agtcgtgttg tatcgtgcat attttcatttc tggtttggtt ttagatactt ctatgtacat 240
aaactatcaa ggtatttata tatgttcata ttttggtttt agctttcatt tcatatgcac 300
attcggctgt gggctccttc tgtaaaataa tgagttctat atcattataa gcattaagct 360
tctcttgtaa ttgtatcagt aatattaatc tcttcatttc attagttcca tgactcaacc 420
atcagcagtt aataaagagt ttgttttc                                     447

```

<210> 146

<211> 450

<212> DNA

<213> *Nicotiana tabacum*

<220>

<223> plasmid g9-3-4

<400> 146

```

cagtgatagc aaatcaagta attttgaagg ggcagctgat gggtctcaca atgttgggtca 60
gagatacaga gagaggggtc agggtcagtc aaagcgtgga ggtgggaatt tccatggtag 120
gcaaggtggc tctggccgaa taaatgccaa ttatgattga ttgatgagga ggctaaaatg 180
tggatttagg tctttttagt ttgtgatgga tagcaaactt accggataat ctttgcttag 240
tctgcatgtc tgggtggtgca gtcttaggtg gtagcttttg acgtggtaaa agagaatttg 300
ttggccaatg tcacacgggt gagctggact acagccgggt tttgccacat ggttttggga 360
aaaattattg tgtttggtgc aacagtaagt gcggcattat gagaactgta attaatttga 420
agaacattaa aatagttgcc cttttctcc                                     450

```

<210> 147

<211> 335

<212> DNA

<213> *Nicotiana tabacum*

<220>

<223> plasmid g9-5-5

<400> 147

```

ggaaacacag aggagagat gatggtgacg aggagattga cagatacttg ggagttaaga 60
acgggaaact atcagggag ctatcaaaga agccaaagag aaaatgagga atatataatt 120
aagctatttt agtccaattt tgacttaatt gaggaatatt ataattaagc tatgttagtt 180

```

```

caattttgaa ctttaattagt tcttttcatta ttccttggtg ggctgtaatt tgacatttct 240
gcaattctgc tgggatgggtt ttgatcttag ggactctatt attttcattt tcttgtgaag 300
atccttgcct cctaataccta atatatacgt gcacc 335

```

```

<210> 148
<211> 245
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid g9-6-1 ; homology with LOX lipxygenase

```

```

<400> 148
gtgaaagtgg acttactgga aaaggaattc ccaatagtgt ctcaatttga ggttctacag 60
cacgaatagc tgatatatag cttttgcagt cctcgtcaac ctgcagaaat catccgcaac 120
ttaagcagga gtggcaacag atgtgtgtag atctattttt atgtcaatat ttgttttagcc 180
aaattccatt attgttagtg tgtgttttta caataaaaac aatgagcaaa tcccctcatt 240
ttccc 245

```

```

<210> 149
<211> 353
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid t12-1-7

```

```

<220>
<221> misc_feature
<222> (141)..(141)
<223> n can be any nucleotide

```

```

<400> 149
gcattgcggt gcctatccaa agatcctcgg ttagatcaa gcatgagtga cattgttaaa 60
gaactagagc aactttatca acaatctaaa gatgcaggta atactcgag ccacggtaac 120
aaccggccta gaccacgtag ncgaagtgct ggtgatgttg gtaataaaca tacttcagtt 180
gcttatccaa gaccgtctgc ttctcccctt tatgctaaat aattcaataa atgatatgat 240
gccttttcat gttttgcctt tatgtttttc aagctgaaga acctgcacat ttgcagaatc 300
agctgattgt acagttgttt tggttaatgt attggatgtg tttgtaacct tga 353

```

```

<210> 150
<211> 351
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid t12-2-1 ; homology with chitinase class 4

```

```

<220>
<221> misc_feature
<222> (31)..(349)
<223> n can be any nucleotide

```

```

<400> 150

```

```

gtaatataat cgtatattct ttttaaaata naatcatgta tagtggagtc tnatgcaatt 60
ctcanaacat atatatgtcg ncctcactac cgggggagca actaatantg aatatctnng 120
gttatncttt gattcaactn ctgggnatna cttacgtcct aacatgt nag attatcccca 180
gtctccagac ccagtngttg acganactca gtataatact cagcccttcn ggcaacagtc 240
tgaagggtgga nctccgncac atncnatctg gccattaatg gctcaaatgg ttggggccaag 300
accttgggna naagntgatg aaagaatggg ngnttggtnc gnncgatanc a 351

```

```

<210> 151
<211> 352
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid t12-2-18

```

```

<220>
<221> misc_feature
<222> (30)..(347)
<223> n can be any nucleotide

```

```

<400> 151
gaatagttga acttattttt caaatggcan aaatggactg acttaacttc tgtacatnag 60
ctataaagat gataatcaga gtgcctnctg catntcatcc tcttcttgga antgcaagaa 120
ctggaagccc ttcattgatg tggagtgtaa acgtggtnct ataagttant tctttcgtgt 180
cgtctgatag tttgaacctg anganatgaa gaagagctan tggnaagat ctncatgngt 240
caataaanga gatcttngcc taaacanatt cgnggacnag cgtgaaatgn tagggaatgt 300
gaatggtaac gctggngctgg aagaagancc nntcngnca agncaanctt tc 352

```

```

<210> 152
<211> 424
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid t18-2-5 ; homology with basic PRB-1b [I]

```

```

<400> 152
gttcgatgca acaatgggtg gtattttata acatgcaatt atgatccacc tggtaattgg 60
agaggacaac gtcctacggt gatcttgaag agcaacatcc ctttgattcc aagttggaac 120
ttccaactga tgtctagtaa taacggttta cgtgatcaaa taatgaataa aagctttgtc 180
atgtgttaag gaaaattaaa taaataccag tactatgcta tgtgatgtta tcttcttacc 240
cagtggataa taatccaatg gtgtagcaag ggggtggattt actgttatct acttgtttta 300
catttgtttt tgggtgtatt atggaggtgt gtatatgtat gtgttttgat gaataaacia 360
agtgaacaag gtgatgagtc aacagcgatg taaatttggt ctttgattaa tataattact 420
tact 424

```

```

<210> 153
<211> 277
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid t18-3-2

```

```

<220>
<221> misc_feature
<222> (40)..(265)
<223> n can be any nucleotide

<400> 153
ttcaaagttt tcgttgccct accaaccacc ggtggatgtn gtcctccng cccacaagtn 60
aacctgatat cttnttgttt tcctntagta ctagaaaaat ataangtagt attagttttn 120
cattctttca atgtgtgcag ttacatccct atcttttggg aggatacatc atcctcgnca 180
tcattggact tgaagtacca ccttaatcng taaccacaat ttttnaactt taaataatat 240
caaatttata atgacaaata tgttncttct ccacttc 277

<210> 154
<211> 366
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t18-3-6 ; homology with chloroplast RNA
binding protein

<220>
<221> misc_feature
<222> (43)..(43)
<223> n can be any nucleotide

<400> 154
gtactatatg atggtgagac tgggagatct cgtggctatg gtntttgtga gctatgagaa 60
tagagaacaa ttggagaatg cccttcaaaa tcttaatgga gtggaactgg atggaagggc 120
aatgcgcatg agcttagcac aagggaagaa acaataagat ggacaagatt cttgtatatt 180
agttgtaaaa gttgaaaatt taccatcaat agaagaacaa tgttttattc atggattaag 240
atggctaaag gcttttaact aggacaaagg gagatgtacc atttgaatta catcttccat 300
aggttgagct ttctatcttt gtttctttac tgcctttcat aatttagaga tatcattggt 360
cctttc 366

<210> 155
<211> 282
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t18-4-18 ; homology with AGP-b (ADP-G
pyrophosphorylase, small sub.)

<220>
<221> misc_feature
<222> (47)..(265)
<223> n can be any nucleotide

<400> 155
gtaatcaccg gtttttattt taaacgaata atttttacag tacctantct nctctttag 60
gggtaatgag aantatctag ctacataaaa gtnggatgtg cgctanattt ctacaggnaa 120
agcaaaatna aagtagaana tttctaccgc atggctgttn acccaagatt tgggaggaca 180
accaagtncc aangcctncc ttcanatgat aatgccactg ggaatcaatg ngtccttgat 240
nacngtgana atcccctct agannaagta tccatctgtt tc 282

```

<210> 156
 <211> 376
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid t2-1-1 ; homology with ubiquitin
 conjugating enzyme

<400> 156
 accagaaatt gctcacatgt acaagaccga caggtccaaa tacgagacca ctgctcgtag 60
 ctggactcag aaatatgcta tgggataatg gcaaaggcgt caccaggcat gtctgagact 120
 ttgtaacagc aatgtcttat tgtgctggtg gtgaatgaat aaattcggcg aaagaactta 180
 gtttacttct taatctccct taaagtgggt tgtcaagaga catgtctttt caatttgtga 240
 atatctatct gatgactatt agtaaggag aaacttcatt taattttact ttgtttgcca 300
 gtttacctga gcctttctct agtttttcca atttgcttgg cttgtttggt tctgcgttca 360
 aagttggtat tgattc 376

<210> 157
 <211> 364
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid t2-1-3 ; chloroplast genome [I] homology

<220>
 <221> misc_feature
 <222> (3)..(257)
 <223> n can be any nucleotide

<400> 157
 ggnnnncaat ngnnatcgna cnagnnnncn gnannannan tccaaagctn tcnatnttc 60
 tccattactt gtgtggataa gccnataatn atagagtata taacttcgat catagggatc 120
 aatttctagt cgcataagct cataataatt ctgcaaagct tccgcgctaa tttccttcgg 180
 atctgagccg acatcccatc tctgtaatag gtaaatgcct ctttttctcc tgaagttgtc 240
 ggaattactc gtaatangat attggctaca attgaaaagg tcttatcaat aaaatttcca 300
 tttatccgtg atctaggcat aggtagcaat ccattctaga attcttctca ttacctctca 360
 tggg 364

<210> 158
 <211> 184
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid t2-6-3

<400> 158
 gagatcagta tacatgaaat ggtatatagc aggacatagt ttcttttagg gaaatgtcaa 60
 taggttagag aagaatgggt aaaccgccgg cccgacgggt taattagggt attatataat 120
 taggtttatc ttttgacttg tatgttatta gctagtaata atatacttat tcaattttgt 180
 gccc 184

<210> 159
 <211> 534
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid t7-1-12 ; homology with SNF-1like kinase,
 calcineurin B-like calcium sensors interacting
 protein in Arabidopsis

<400> 159
 ccagattaag cttcaggggg agaagaccgg gcgcaaaggt catttatccg ttgcaaccga 60
 gatttacgag gtggcacctt cactatacat ggttgcttcg caaggctgga ggagatacct 120
 tggaatttca caagttttac aagaacctgt ctaccggatt gaaagacatt gtttggcaac 180
 tgggggaagg aggagaggaa gtaaaagatg gtcttgctcg agcttgattt tggagtgtga 240
 agtcagtggg ttgccaatgt gaataactct gcaaacagtg tgctagatat tagataatgc 300
 tgtgctgtaa aaagaacttt ttataatcag ttgatgtcaa acagagtgtt taagcatcaa 360
 cgagtttata atacattggt ttatgtacga ttaaggcacg taaacttaga aaaattaaga 420
 ctggttttac attgccattg ttgtcttatt tggtgacaag atattacgga tcaatacccc 480
 ccccaaaata tgtgctttta ttgaactgga agtggttaaca aagtgtgtta tata 534

<210> 160
 <211> 398
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid t7-2-4 ; homology with a multi-functional
 protein -beta oxidation

<220>
 <221> misc_feature
 <222> (36)..(354)
 <223> n can be any nucleotide

<400> 160
 cctcagaaac gcaatggagg tgtcatgttt tggggntgat acaattggat ctgaatacat 60
 atactcaaag ctaaaaactt ggcatgaggc ctatggtgat ttttataagc catcaacatt 120
 tttggagcag agagctgcaa aaggattgcc cttgggagga tcgtgttgag ctgcataatca 180
 tatgatcata tccttgacaga agaagcagta attcaagcat gctgaacttg tgntcggaaa 240
 taaggcgggg aagtttggtta attacaatta gttagnagtt ccattaatta taataatttc 300
 ctattttttc ccctcaagtt atttgatggg agttgtaact ttggctctac aaantagtgt 360
 aatcgtccga gaaagagaat gaaatgtcca aacgcttc 398

<210> 161
 <211> 398
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid t7-4-7 ; homology with GST (bronze-2
 protein homologue)

<400> 161
atgggggttg tagatatcat gatcattatt acactagggg catacaaagc acaagagcta 60
gtgttttggt tgaaaatatt ggatgcagag aagacacccc tcttatactc atgggttgact 120
agtttaattg agctgcctat agttaaggaa atcactcccc cttatgacaa ggtgctttca 180
tttcttcac tctctcaaaga catcgtcttc aaagctccgg ccaattgacc ttttttgtgt 240
ttatgtccat ctctgtctct tttgtctact ccaactcatta attgtactca atgtcttctc 300
ctctgtattg tataatataa taaggcttat ggccatttgg attccaaagg ctacttatat 360
tttgagtgtg tgttttatac aacagaaagt tatcatcc 398

<210> 162
<211> 397
<212> DNA
<213> *Nicotiana tabacum*

<220>
<223> plasmid t7-4-8

<220>
<221> misc_feature
<222> (207)..(351)
<223> n can be any nucleotide

<400> 162
ccatgagaat gacgaaagca aggcagaaaa gaaaggagaa catgataaga agaatttgat 60
gaagaagggt gctgggaaaa tagggaaaaa attattgcat agtcatacta agaagcagca 120
tgaggaaggc tatgaaggag aagaggagga agaaggagaa gaaggagaag aagtagaagg 180
agaagaagta gaagtagaag aagcggnaga aggtggtttt gaatttgaac tcnactttga 240
tttttgatta agctttatgt atcactccag ctgtgtacgt tggatattct ccttattggg 300
ttaaaaanac ataagtatgt ttcgaggata tctctgaata ggtggcttgg natttgtaac 360
ctgtggtacc atatatatga gogtcttcta gtttttt 397

<210> 163
<211> 304
<212> DNA
<213> *Nicotiana tabacum*

<220>
<223> plasmid t7-5-4

<400> 163
acgaatgtgt ttagtactcg gggcaactcc aagtcttgag atccaagtgt tgcagcctct 60
ttagccttta aaagggtgat gctgccattt taacctggtt ttagtttgga tgaaatttga 120
attcaaagct tttgtttgta gcttaggttc ctgtattagt tttcagttga aatagttgtg 180
tactctttca tctttgagca atgaaataaa agtcctcaaa tctgcttctt ttagaactaa 240
aaaagatctc ttatatatttc ccctgtaaaa tcttgcaatt gattatcaac cgtcctctct 300
tatt 304

<210> 164
<211> 307
<212> DNA
<213> *Nicotiana tabacum*

<220>
<223> plasmid t7-5-5 ; *Arabidopsis* genomic homology

<400> 164
gagctgataa atggaaaagc agcagtaatt ggtttcctat tgctgttgga ttttgaactc 60
ttgaccggta aaggtcttct caaaggaaca gggttccttg atttcattta ctcagtttca 120
gatgctttca aataaaacca ttccgctata tacttactcc ccctccctct ttttcccctt 180
ttcctatatt tctgacaaat ttgcatttgt ttaaataaac aaaaacaaag aatgttgatc 240
tttttatatg ttgtccaatt atatggatta gtgaattata gaccattgaa ttccagctga 300
agaatgt 307

<210> 165
<211> 192
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t7-6-4

<400> 165
aacaataatt ggctataaca ttcaaaaata tttgaaacaa gcgatgccgt tacgtagagg 60
ttttacggta aaagtagaag ctggtataag ccatcaatgg aaaaactgga taattcgatc 120
ttatataaat ttctaatgt attgagacta atatatacag tcggatttta aggttttggc 180
cgaccggatt ac 192

<210> 166
<211> 232
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a1-1-17

<220>
<221> misc_feature
<222> (71)..(176)
<223> n can be any nucleotide

<400> 166
agagaaagat ctgtacgtaa ttgccaaaaa cgatgagtgt ttggatgtca tgctttatatt 60
tggtgtttat nggtgtctcc cttttgtatt tgaagttttc ccagaaaatt agcaaagaat 120
aagcttcaaa ctggttttac attttnggtt caaaatgtca natcaanaa tctgtnatgc 180
tattggtggt gtatgtaata attagatccc attttcttcc tctttccttt at 232

<210> 167
<211> 489
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t7-1-14

<400> 167
ccctcagaac gcaagtagca acagtttctt caattgctat tgcttatctc tgaactcgaa 60
ttcattactt gtaagatctg ctaataatca ctatgttttt ctgcagtgga ggtgtcatgt 120
tttgggctga tacaattgga tctgaatata tataactcaa gctaaaaact tggcatgagg 180

cctatgggtga tttctataag ccatcaacat ttttggagca gagagctgca aaaggattgc 240
 ccttggggagg atcgtgttga gctgcataatc atatgatcat atccttgtag aagaagcagt 300
 aattcaagca tgctgaactt gtgctcggaa ataaggcggg aaagtttgtt aattacaatt 360
 agttagaagt tccattaatt ataataattt cctatttttt cccctcaagt tatttgatgg 420
 tagttgtaac tttggctcta caaactagtg taatcgtccg agaaagagaa tgaaatgtcc 480
 aaacgcttc 489

<210> 168

<211> 877

<212> DNA

<213> Nicotiana tabacum

<220>

<221> CDS

<222> (31)..(588)

<400> 168

aacttcctct cttaaagtgc atttactttg atg gag aat tat caa cat att ctt 54
 Met Glu Asn Tyr Gln His Ile Leu

1

5

cca aat tac tct tct tca tcg tct gat cag ttg tca gta atg aat atg 102
 Pro Asn Tyr Ser Ser Ser Ser Ser Asp Gln Leu Ser Val Met Asn Met
 10 15 20

atg aac aac aat tct caa gca aaa aca act gaa tta acc caa gac aat 150
 Met Asn Asn Asn Ser Gln Ala Lys Thr Thr Glu Leu Thr Gln Asp Asn
 25 30 35 40

aag aaa tcg agc ggg ttt ttg ggg cta atg gca agc atg gaa gct cct 198
 Lys Lys Ser Ser Gly Phe Leu Gly Leu Met Ala Ser Met Glu Ala Pro
 45 50 55

agc tcc agt gtt gtt act gat cac cca aat agc att ccg tat aac cct 246
 Ser Ser Ser Val Val Thr Asp His Pro Asn Ser Ile Pro Tyr Asn Pro
 60 65 70

aat gat cag aac gag gtg aga tcg ggt aag aag aat aaa gtt gag aag 294
 Asn Asp Gln Asn Glu Val Arg Ser Gly Lys Lys Asn Lys Val Glu Lys
 75 80 85

aag att aaa aaa ccg aga tat gct ttt caa aca agg agt caa gtg gat 342
 Lys Ile Lys Lys Pro Arg Tyr Ala Phe Gln Thr Arg Ser Gln Val Asp
 90 95 100

att ttg gat gat ggt tat aga tgg agg aaa tac gga cag aag gct gtc 390
 Ile Leu Asp Asp Gly Tyr Arg Trp Arg Lys Tyr Gly Gln Lys Ala Val
 105 110 115 120

aag aac aac aga ttc cca aga agc tac tac cga tgc acg cat caa gga 438
 Lys Asn Asn Arg Phe Pro Arg Ser Tyr Tyr Arg Cys Thr His Gln Gly
 125 130 135

tgt aac gtg aag aaa caa gta caa agg ctg tca aag gat gaa gga gta 486
 Cys Asn Val Lys Lys Gln Val Gln Arg Leu Ser Lys Asp Glu Gly Val
 140 145 150

gta gta act act tat gaa ggc atg cat tca cat ccc att gag aag tcc 534
 Val Val Thr Thr Tyr Glu Gly Met His Ser His Pro Ile Glu Lys Ser
 155 160 165

aca gat aac ttt gag cac att ttg act cag atg caa atc tat gct tcc 582
 Thr Asp Asn Phe Glu His Ile Leu Thr Gln Met Gln Ile Tyr Ala Ser
 170 175 180

ttt tga aacgtccatc acttcaatgc ctaaggcatg acactcaatt agtcacttgt 638
 Phe
 185

aaaatagttac tacagtatat tgtgtacatg cgttttgaac ctagatgcta tattttgaaa 698

taaaacgcaa cttcattagg gaatttaatt tgatcattgt acaactaaaa gtaatgttgc 758

tatttttttg tttttatcac ttgttttttg ccggagccat gctcttcatt ttaactcttt 818

tcttttagaa ttaacaaata atttcatgtt ggagaaagat acgtgccaaa aaaaaaaaaa 877

<210> 169

<211> 185

<212> PRT

<213> Nicotiana tabacum

<400> 169

Met	Glu	Asn	Tyr	Gln	His	Ile	Leu	Pro	Asn	Tyr	Ser	Ser	Ser	Ser	Ser
1				5					10					15	
Asp	Gln	Leu	Ser	Val	Met	Asn	Met	Met	Asn	Asn	Asn	Ser	Gln	Ala	Lys
		20						25					30		
Thr	Thr	Glu	Leu	Thr	Gln	Asp	Asn	Lys	Lys	Ser	Ser	Gly	Phe	Leu	Gly
		35					40					45			
Leu	Met	Ala	Ser	Met	Glu	Ala	Pro	Ser	Ser	Ser	Val	Val	Thr	Asp	His
	50					55					60				
Pro	Asn	Ser	Ile	Pro	Tyr	Asn	Pro	Asn	Asp	Gln	Asn	Glu	Val	Arg	Ser
	65				70				75					80	
Gly	Lys	Lys	Asn	Lys	Val	Glu	Lys	Lys	Ile	Lys	Lys	Pro	Arg	Tyr	Ala
			85					90						95	
Phe	Gln	Thr	Arg	Ser	Gln	Val	Asp	Ile	Leu	Asp	Asp	Gly	Tyr	Arg	Trp
			100				105					110			
Arg	Lys	Tyr	Gly	Gln	Lys	Ala	Val	Lys	Asn	Asn	Arg	Phe	Pro	Arg	Ser
	115					120					125				
Tyr	Tyr	Arg	Cys	Thr	His	Gln	Gly	Cys	Asn	Val	Lys	Lys	Gln	Val	Gln
	130					135					140				
Arg	Leu	Ser	Lys	Asp	Glu	Gly	Val	Val	Val	Thr	Thr	Tyr	Glu	Gly	Met
	145				150				155					160	
His	Ser	His	Pro	Ile	Glu	Lys	Ser	Thr	Asp	Asn	Phe	Glu	His	Ile	Leu
			165					170						175	
Thr	Gln	Met	Gln	Ile	Tyr	Ala	Ser	Phe							
		180					185								

<210> 170

<211> 21

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: primer EVVRA
 26

 <400> 170
 cgcgagact ctgagggcc c 21

 <210> 171
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: primer EVVRA
 28

 <400> 171
 ctgagatcta gaagttcatt tactttgatg 30

 <210> 172
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: primer EVVRA
 29

 <400> 172
 attgaagatc tagacgtttc aactcgaggc 30

 <210> 173
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: primer EVVRA
 30

 <400> 173
 ccctcgagcc accgtactcg tcaat 25